

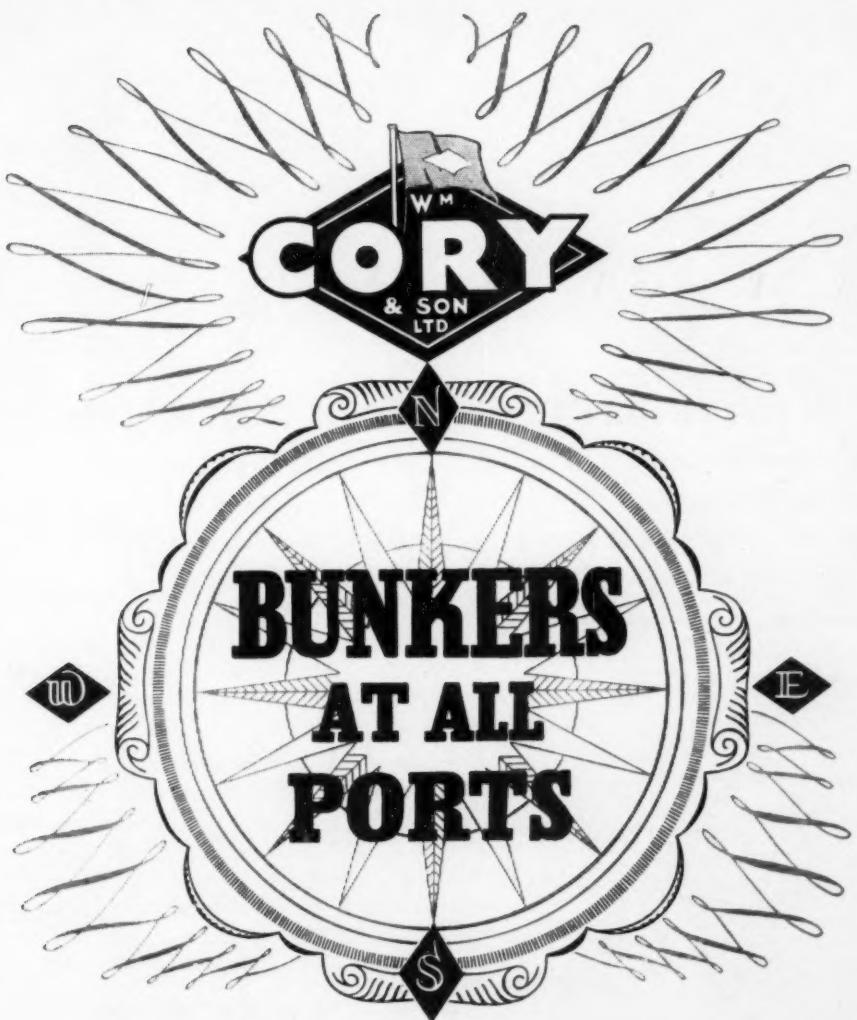
# The SHIPPING WORLD



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15 MARCH 1961

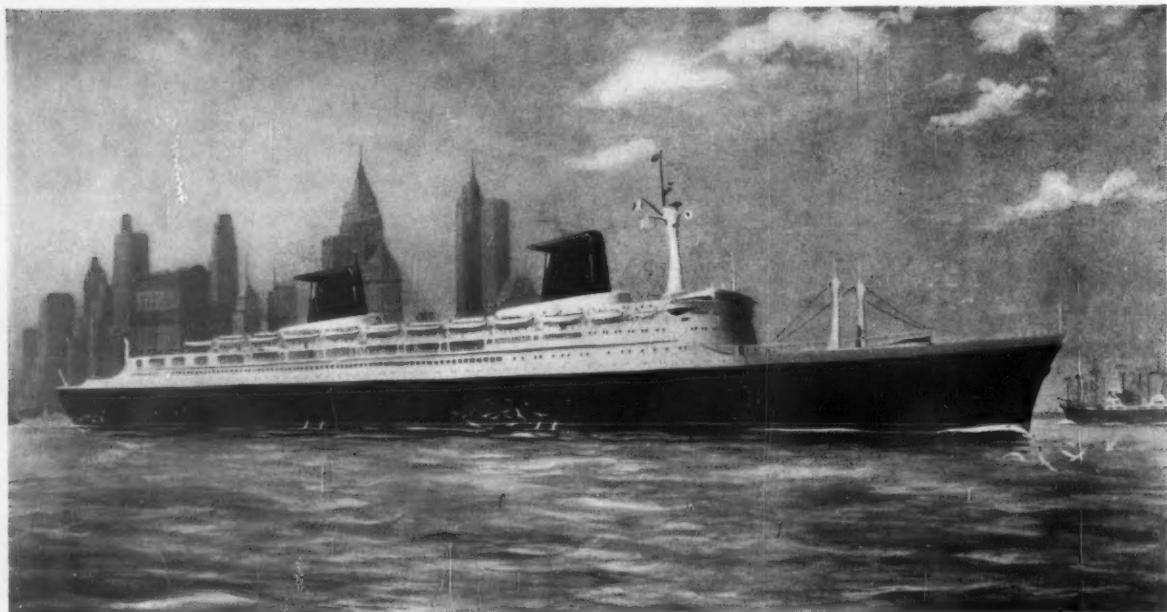
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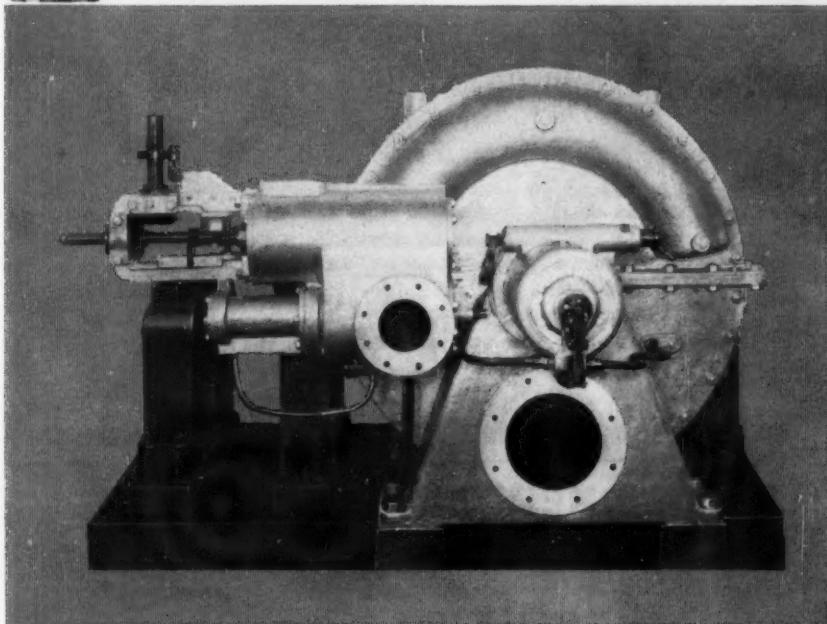
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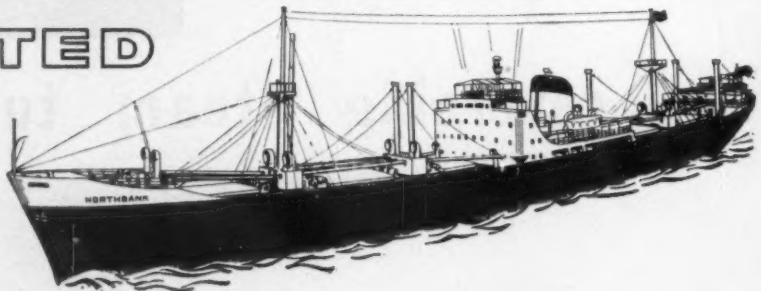
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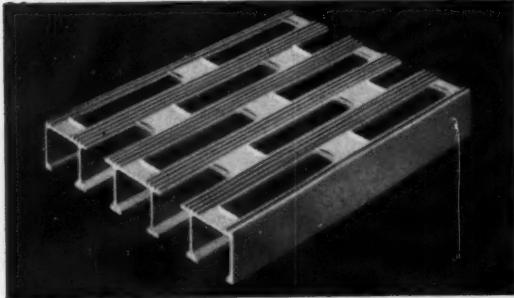
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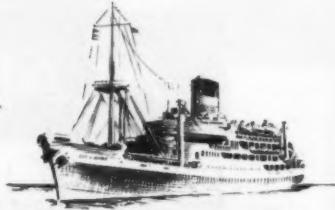
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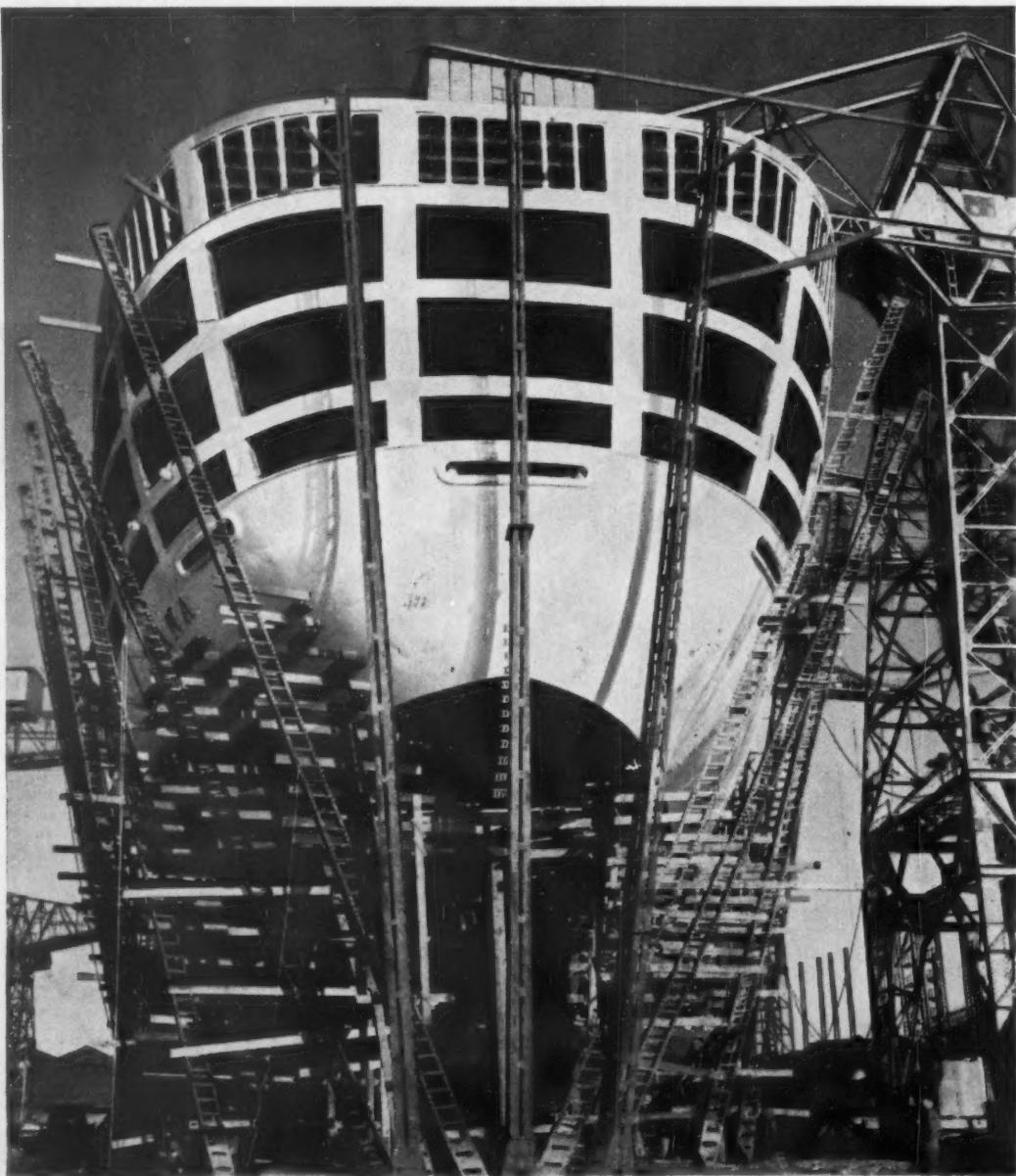
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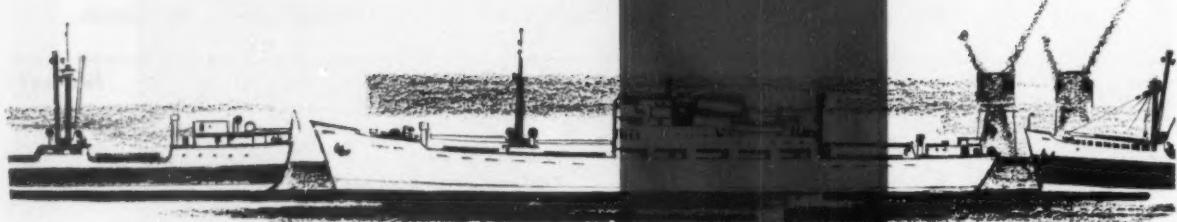
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## THE SHIPPING WORLD

### ARBITRATION OR LITIGATION?

THE various merits or disadvantages of arbitration or litigation in maritime commercial disputes are of concern to all shipowners and brokers, and some attention has been paid to them in the annual report of the Liverpool Steam Ship Owners' Association, the principal features of which are summarised in following pages. The question arises because the Lord Chancellor is considering the future of the Commercial Court, and recently convened a conference of users to make suggestions as to its future use and efficiency. The conference was of the unanimous opinion that the Commercial Court should continue, and a sub-committee is at present engaged in drawing up recommendations for the Lord Chancellor.

The Commercial Court was established in 1895. It owes its origin to a distinguished Lord Justice of Appeal, Sir James Mathew, who felt that commercial people were not satisfied with the way in which their cases were handled, owing to the delay, inconvenience and expense involved in the ordinary procedure. He concluded that a special Court with simpler procedure would better meet the requirements of the commercial world; and he was right, for the new Commercial Court was a great success. In more recent years, however, it has become increasingly apparent that the Commercial Court is no longer as popular at it once was, as more and more cases are being referred to arbitration. The original purpose of the Court has become obscured. Although it was primarily intended to provide convenient, swift and inexpensive justice, the Commercial Court has now acquired the reputation of being slow, cumbrous and costly. Pleadings have become as verbose and prolix as is to be found in any action in the Queen's Bench Division; and evidence, which should in proper

cases be given exclusively by documents, is habitually oral, and hence expensive and slow because a speedy date of trial is not easy to fix when the attendance of a number of witnesses has to be arranged. It is to ways and means of eliminating these defects that the work of the sub-committee is directed, for both the Liverpool Association and the Chamber of Shipping have agreed that the disappearance of the Commercial Court would be a serious loss. Indeed shipowners have made a specific recommendation that a new Division of the Court should be created, consisting of Admiralty and Commercial (thus ending the long but artificial association of Admiralty with Probate and Divorce) each with judges assigned to it who are experienced in each field.

It is by no means suggested that recourse to the Commercial Court should be preferred to arbitration. On the contrary, the Court and arbitration are considered to be complementary. Where the issue involves no substantial point of principle or large sum of money, arbitration is to be preferred, but where the converse exists the Court is more appropriate. Arbitration also has the advantage that it is private, and awards are more easily enforceable abroad than judgments, but when the dispute involves both law and fact arbitration, too, can become very costly. Foreigners, it is thought, tend to prefer the privacy which arbitration affords, but the shipowners have suggested that arrangements might be made for Commercial Judges to sit as arbitrators. At any rate it is clear that if the Commercial Court is to survive, changes will have to be made in procedure which will restore to it the form which its founders contemplated, to make available simple, quick and inexpensive facilities for resolving commercial disputes.

### Current Events

#### American Shipping Investigations

THE annual report of the Liverpool Steam Ship Owners' Association (when is this antiquated title going to be brought up to date?) naturally refers to the recent actions of the United States Federal Maritime Board in directing non-American shipping companies to produce documents and other information located not only in the United States but anywhere in the world—actions which have led to strong protests. As the report states, regulation in the United States of the conduct of the business of common carriers, as defined in American law, is no new thing and in principle the Association has not quarrelled with it in the past in so far as it has been kept within proper

limits. "The present trend of American shipping policy is clearly towards greater regulation, expressing itself in both legislative and administrative form. Opposition, it has to be accepted, cannot merely be based on the fact that every increase in regulation must at least be an additional irritant and handicap to those on whom it is imposed in the efficient running of their business. Opposition is fully justified, however, when, as in the situation in which the lines now find themselves, regulation goes far beyond being a mere irritant or minor handicap and is or could be commercially very damaging or is ludicrously disproportionate to the ends in view and extremely burdensome. Regulation which is tantamount to commercial

espionage and which deprives commerce of legitimate and reasonable freedom of action is inherent in these orders." Attempts on the part of one nation to exercise jurisdiction in this extreme manner must lead to direct conflicts of jurisdiction. As it is the United Kingdom lines are faced with two orders, one from the U.S. Government and one from their own Government, in direct conflict with each other.

### Future of Cross-Channel Ferries

THE Channel Tunnel project, spasmodically coming into prominence and then being thwarted, has checked the orderly development of cross-Channel transport for nearly a century, according to Mr J. L. Harrington, Chief Shipping & International Services Officer of the British Transport Commission. Until a decision was reached on the future of the tunnel, he said, there must be justifiable hesitation about spending money on ferry developments. The renewal of vessels now reaching the end of their economic life, the provision of additional tonnage and new shore facilities for potential traffic growth, all require considerable capital investment which can only be justified by a reasonable expectation of profitability over the life of the assets. Much of the international organisation which regulated the ferry services would, with little or no adaptation, fit the requirements of tunnel working, and, admittedly, the tunnel would have advantages for many kinds of traffic. It could be claimed on the other hand that ferries had certainly not reached the limit of their development. "The building of new tonnage and shore works, the conversion of existing conventional routes to the ferry concept, and the opening up of new routes, could all form part of a programme, with phasing of relatively moderate expenditure at each stage." Earlier Mr Harrington gave some striking figures about the growth in cars ferried to the Continent, particularly from Dover. In 1938, the number of accompanied motor vehicles handled through the port was 31,000; last year it was 308,031. Speaking of turnaround in the Anglo-French motor car services, three ships make 24 single trips in 24 hours. (Passage 90 minutes; turnaround 90 minutes). The Dover-Dunkirk train ferries did 12 trips a day with three ships (passage about 4 hours; turnaround 2 hours). These ferry activities were of a specialised character, closely related to road and rail transport. "It can justifiably be claimed," he added, "that they are offering a worthwhile and efficient service. In an expanding economy, with efforts being made to increase the national income from tourism and to strengthen our trading ties with Continental Europe, cross-Channel ferries have a vital role."

### More Passenger Ship Sales

PASSENGER ships have provided a certain amount of interest during recent weeks in terms of ship sale and purchase activity. It is now confirmed that the Booth Line has paid £750,000 for the Belgian passenger motor liner *Thysville*, and she will eventually be renamed *Anselm*. She will go on the Booth Line service to South America and will join the steamer *Hubert* on the famous service which goes right up the River Amazon to Manaus. The *Anselm* will be leaving Liverpool on her first Booth voyage on June 16, and in the meantime she will be having certain alterations to her passenger accommodation. When she does enter her new owner's service she will have accommodation for 128 first-class and 200 tourist passengers. She was built in 1950 at Hoboken by the John Cockerill shipyard, and until 1957 she held the name *Baudouinville*. At one time the Booth Line had three passenger steamers on the Manaus service, the *Hubert*, *Hildebrand* and *Hilary*. The prewar *Hilary* was sold for breaking up in 1959 and went to Inverkeithing for demo-

lition. The *Hildebrand* was lost on the Portuguese coast in September 1957 near Lisbon. The other passenger ships in the sale news are two American vessels, both named *Santa Paula*, both built by the Federal Shipbuilding Co Inc., of Kearny, N.J., in 1932 and both sold by the Grace Line. That one American firm should be selling two ships of the same name is somewhat surprising, but in fact the ships were better known as the sisters *Santa Rosa* and *Santa Paula*, and it was following the completion of a new *Santa Rosa* in 1958 that the 1932-built vessel of that name was renamed *Santa Paula* while her sister was already laid up at New York. Eventually a new *Santa Paula* was completed, and so it came that her two older namesakes were idle in New York. Now, after a lot of rumours about their future, they have been sold to the Typaldos concern and renamed *Athina* and *Acropolis*.

### New Machinery for the "Morar"

WHEN the ore carrier *Morar* entered service in February 1959, it was made clear that after she has been running for about twelve months or so the existing gas turbine would be replaced by one of an improved design. This has now been done, and in addition to fitting a Mk. II turbine embodying a special astern masking device with a very low windage loss when running ahead, four new gasifiers of the latest design embodying all modifications considered advantageous since the vessel first went into service have been installed. The Mk. II turbine, already in service in the *Robert W. Vinke* (SW, 2.11.60), should do much to reduce the fuel consumption—a point of interest to shipowners—but so far as can be understood the present trouble in British free-piston engined ships is not caused by the turbines but by the gasifiers. Reports of gasifier failure and difficulty in restarting have been heard, and while it must be realised that this type of propulsion is new to this country, there seems to be little doubt that the French are not experiencing the same amount of trouble; in fact they are most optimistic about the future of this type of prime mover. Although the troubles reported in British ships do not tend to make British shipowners very optimistic about the future of the free-piston gas turbine ship, it must be appreciated that teething troubles invariably accompany new forms of propulsion, and once these have been ironed out all should go more smoothly.

### Refrigerated L.P.G. Tanker

A BRIEF REPORT in this journal a year ago (SW, 16.3.60) revealed that negotiations were in progress for the construction of a liquefied petroleum gas tanker for the Bridgestone Tyre Co Ltd, of Tokyo, to be built by the Yokohama shipyard of Mitsubishi Nippon Heavy Industries Ltd. The vessel was to be used for the carriage of L.P.G. from Kuwait to Japan under a long-term contract with the British Petroleum Co Ltd. Now some details of the design of the ship have been announced, and they show that it will be of a novel type. Designed by Conch International Methane Ltd, the firm responsible for the design of the *Methane Pioneer*, it will employ for L.P.G. the refrigeration process originally developed for the carriage of methane. Liquefied petroleum gases consist either of propane or butane, and these can be liquefied by pressure alone. This is the method employed in the growing numbers of L.P.G. carriers now at sea, carrying L.P.G. in large steel bottles. Methane, an important constituent of natural oilfield gas, cannot be liquefied in this way, and so the refrigeration technique was developed. By comparison with methane, which liquefies at -258 deg F, refrigerated L.P.G. is much more easy to handle as it liquefies at about -40 deg F. Insulation problems are simplified, while the insulated containers can of course

be rectangular and thus make better use of the space available in the ship than the cylindrical bottles of the normal L.P.G. carrier. The vessel building in Japan will have a capacity for about 17,000 tons of refrigerated L.P.G., and will have a speed of 16 knots. She is due for completion in 1962. Her cargoes will be used largely for industrial purposes, though some will be retailed in the form of bottled gas.

### Mechanical Grain Loading

THE British Transport Commission's latest step in automation may well mean the end of manual loading of grain into cargo vessels at the Grimsby Docks. Some 250 tons of barley have been loaded by mobile grain handling conveyor—the first time such machinery has been used by the Commission—from bulk railway grain vans direct into the Dutch ship *Ader*—entirely by the dock authority. Trucks (also new to the area) have "trap-door floors" and the grain empties into a hopper beneath the lines, where it is carried through two 26ft tubes by a spiral screw conveyor, into canvas bags at the top of the tubes, and thence released in the hold of the vessel. Two units have been supplied and they are adaptable for loading from road transport when the grain is tipped from a lorry into boxes on the quayside. It took 6½ hours to move the experimental load, excluding breaks, but a spokesman for BTC said this was no indication of the appliance's working speed. Men will still be required to load a top layer of bagged grain, which is compulsory, and cranes will also be required.

### Trawler Building Restrictions

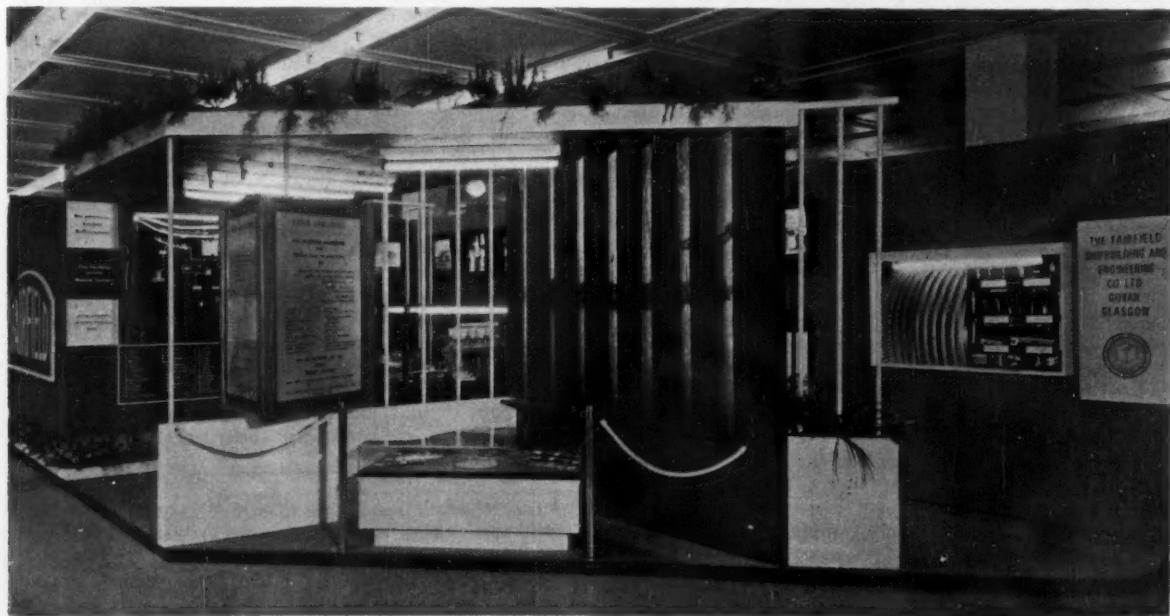
THE DECISION of the Scottish Committee of the White Fish Authority to restrict current trawler building applications under the grant and loan scheme until September, when the scheme will be again reviewed, has caused concern to boatbuilding yards throughout Scotland. At the end of the year, the position became extremely difficult because of the restrictions then applied, and representations were made which resulted in some slight relaxation. The new situation will be considered by owners and fishermen, as well as by building yards catering for this particular type of construction. Meanwhile the decision has

caused dismay in the yards, where construction of seine-net vessels in the 40ft to 70ft range has been a major activity in recent years. The decision also affects inshore boats, the object being to restrict the seine-net fleet to about its present status. The slowdown has been undertaken because of uncertainties now existing with regard to the future policies of maritime and long-distance fishing nations. Some assistance will be given to the engineering of vessels and provision of boats for creel fishing and boats required under the training scheme for the Outer Isles will not be affected. In Aberdeen, where the coal-burning fleet is being steadily renewed by modern oil-fired trawlers, the decision has been received badly and is regarded as a retrograde step.

### Selling Shipbuilding Overseas

ISOLATED TRIPS abroad by the chairman or managing director of a British shipyard have been made from time to time in the past, and have usually been successful in attracting export orders. But British shipyards are finding that a continuous sales effort is necessary under present-day conditions, and more is gradually being done in this field. One British shipyard, the Fairfield Shipbuilding & Engineering Co Ltd, is exhibiting at the Leipzig Fair which opened on March 5. The prospects of obtaining orders for ships in East Germany are probably less good than those for machinery, and it is on the machinery side that Fairfield has mainly concentrated. One of the principal exhibits is a pinion, hobbed and shaved to an accuracy of 0.00002in, while turbine fan blading is also prominent. Over the entrance to the stand is a moving diagram in full colour showing the working of the Fairfield reheat system, as used in the three new Canadian Pacific passenger liners. The Fairfield company is of course part of the Lithgow group, and although it is exhibiting on its own at Leipzig, there will be a stand for the whole group at the British Trade Fair which opens in Moscow in May. Part of the Leipzig stand is shown below.

*The stand of the Fairfield Shipbuilding & Engineering Co Ltd at the Leipzig Fair. Written matter appears in German and English*



## ON THE "BALTIC"

### THE INCREASING USE OF LARGE VESSELS

By BALTRADER

THE CHINESE charterers continue to be open for tonnage on time charter and for voyages in several directions; as far as time charter is concerned they are now inclined to be uninterested unless their rate and terms are acceptable to owners. In the general markets, inquiry is widespread and thereby rather diluted; in no one section is there a great deal of inquiry, although the total is fairly large. Cuba is still well to the fore, there being good demand for tonnage from there to Russia, with prospects of Russian cargoes for the return voyage to Cuba; exchange of cargoes between Cuba and China is similarly a feature of the present-day market. Trans-Atlantic grain cargoes are mostly coming to the near Continent at low rates for large vessels; the United Kingdom is not taking many at present and rates from the United States to this country have slightly eased.

A few weeks ago it was recorded with satisfaction that 200,000 tons of grain had been purchased by Czechoslovakia from North America; later two fixtures of tankers were reported on the same day from the St Lawrence and Halifax respectively to Hamburg for Czech account, one of 19,000 tons and the other of 24,000 tons capacity. A few days later a further 80,000 tons were similarly covered by the fixture of four tankers. These fixtures were large bites out of the cherry. The large grain carrier, whether tanker or dry cargo vessel, has certainly arrived, and many more ships of big capacity are coming into commission or in course of construction. Their size makes it possible to accept a much lower rate of freight than in the case of the 10,000 or even the 14,000-ton vessel and some charterers are giving much thought to the means of turning to their advantage the cheapness of freight in large vessels, while overcoming the handicap of a limited range of suitable ports.

#### Grain Transhipment

We hear of an elevator coming into use in Amsterdam which it is believed is partly intended for the transhipment of grain from very large ships to coasters for distribution of the cargo at outports of the United Kingdom. In this case there may be some more work for the coaster, which is not very prosperous at the present time. One does, of course, hear of an occasional grain shipment from North America to the United Kingdom via the near Continent, and there is little doubt that this tendency will grow, the advantage being with the Continental ports in expense as compared with, say, London, Hull, Avonmouth or Southampton. During the coal shortage in 1950s some coal from the United States reached this country via ports on the Continent; but the import of coal was not on a commercial basis. The use of very large ships for transport of ore is nothing new; for many years the United States steel industry has been fed with ore brought from Chile in vessels of 20,000 tons capacity; and increasing use of large bulk carriers for import of ore is a certainty. J. E. Turner & Co mention a report that 40,000-ton vessels may be employed with coal from Hampton Roads to the River Plate to lighten into converted T2 tankers in the estuary off Isla Flores, although it is commonly thought that exposure to south-east gales may present a problem. Whatever the bulk cargo may be, there is no doubt that a way will be found to employ the large carrier on many routes which are not at present served with adequate facilities for that purpose.

Ever since the last war shipowners have been confronted

with the problem of what was the best size of tramp vessel to order for employment in general trading. Those who have cautiously decided for a vessel of 9,000 to 10,000 tons total deadweight are finding it difficult to trade with any satisfactory results. They find that they can generally do best with time charter for account of the liner companies, but round voyages which they prefer, for example, West African rounds, do not pay high rates of hire, while outward trip time charters which pay better rates leave the comparatively small vessel with the task of working homewards or on cross voyages in competition with vessels of several thousand tons more carrying capacity.

#### The Freight Markets

The Baltic Chartering Committee have succeeded in obtaining tonnage for wheat from North Pacific to India at 2s 6d less than last paid. Two successive cuts of 2s 6d have lately been made in fixtures for sugar from Queensland to the United Kingdom. On the other hand the Russian charterers have come into the market on a considerable scale for sugar from Cuba to Russia on voyage and time charter basis, which has hardened the market for tonnage on this side. The River Plate became quite active late last week.

Fixtures include:—*Sun Victor*, 12,000 tons, Baie Comeau to Hull 46s 3d, option London or Avonmouth 43s 9d, wheat, April 10/25; *Bretwalda*, 10,600 tons, U.S. North of Hatteras, excluding Albany-New York, 46s 6d, heavy grain, April 1/15; *Despina*, 12,500 tons, Hampton Roads to Japan \$8.50, coal, March/April; *Mando Theodora-copulos*, 24,000 tons, Hampton Roads to Japan (Tobata), \$7.25, coal, May 15/31; *S. G. Embiricos*, 12,000 tons, U.S. Gulf to South Japan, \$10, heavy grain, milo or soya beans, option Otaru, \$10.40, March 28/April 5; *Vancouver City* and *Ambassador*, 9,500 tons, U.S. North Pacific to East Coast India, 67s 6d wheat, option West Coast 70s, May 1/25; vessel, 9,500 tons, Mackay, Townsville or Mourilyan to the United Kingdom, 95s, bulk sugar, 5,000 tons daily loading, 750 tons daily discharge, option Antwerp, Rotterdam or Amsterdam, 92s 6d, 1,000 tons daily discharge, May 1/31; *Caprera*, 475,000 cu ft bale, Philippines to Antwerp-Hamburg range, 18 cents per foot copra, March 20/30; vessel, 1,000 tons, Mormugao to Japan, 48s, ore, March 25/April 15; *Theopan*, 9,500 tons, 58ft guaranteed, up River Plate completing Buenos Aires to Moji-Tokyo range, 96s 3d, option guarantee 57ft, 97s 6d, April 24/May 10; *Embiricos* vessel, 9,500 tons, up River Plate completing Buenos Aires, 67s 6d, heavy grain, Clause 6 limited to barley, oats, millet and sorghum, April 18/25.

Time charters include *Max Manus*, 9,240 dwt, 499,000 cu ft bale, 10 knots on 7 1/2 tons diesel, 20s per month, 5/6/7 months (Russian charterers); *Llantrisant*, 10,730 dwt, 635,000 cu ft bale, 13/13 1/2 knots on 15 tons fuel oil plus 1 ton diesel, 23s 6d per month, about 12 months delivery U.K. or Havre-Hamburg range, March 18/20 (Palm Line); *Redgate*, 10,075 dwt, 499,000 cu ft bale, 11 knots on 11 tons diesel, 17s 6d per month, one West African round, early delivery Rotterdam.

THE Newcastle upon Tyne branch of the Red Hand Compositions Company is moving its office to Watergate Buildings, Sandhill, Newcastle upon Tyne 1, on April 1.

THE ADDRESS of the office of the Commissioners of Irish Lights is now 16 Lower Pembroke Street, Dublin 2.

# British Shipping and Trade

## ANNUAL REPORT OF LIVERPOOL STEAM SHIP OWNERS' ASSOCIATION

THE GROSS tonnage entered in the Association at the beginning of 1961 totalled 4,043,834 tons compared with 4,487,215 tons at the beginning of 1960. Of the owners by whom that tonnage was entered, 42 are engaged in the foreign trades and 10 in the coasting trade.

The weight of imports into the United Kingdom in 1960 showed an increase of 14.5 per cent over that of 1959, 128.2 mn tons compared with 111.9 mn tons. The 1960 figure is the highest on record. In value, the total cost increased by 13.6 per cent, rising from £4,008 mn in 1959 to £4,556 mn in 1960, which is also the highest on record.

Table I—Imports by Weight

	Tons weight in thousands (000 omitted)					
	1938	1956	1957	1958	1959	1960
Food, beverages and tobacco	22,000	19,000	18,900	21,300	21,500	20,300
Basic materials	26,300	32,900	35,100	29,300	30,200	38,300
Mineral fuels and lubricants	11,800	45,500	43,900	47,300	53,700	60,200
Manufactured goods	7,200	7,100	6,400	6,300	6,500	9,400
Total	67,300	104,500	104,300	104,200	111,900	128,200

	Average Import Values per ton weight					
	1938	1956	1957	1958	1959	1960
Food, beverages and tobacco	19.6	76.2	79.2	71.1	71.2	76.1
Basic materials	9.2	33.5	33.3	31.1	30.9	27.7
Mineral fuels and lubricants	3.9	9.1	10.6	9.4	8.8	8.0
Manufactured goods	27.8	130.3	146.7	146.0	164.6	155.8

The shipping tonnage employed in bringing in the foreign trade of the United Kingdom as shown by the tonnage entrances has been as follows:

	Tons net in thousands (000 omitted)					
	1938	1956	1957	1958	1959	1960
British	38,908	41,523	41,175	41,668	43,309	44,866
Foreign	29,464	35,614	37,242	38,197	41,470	46,739
Total	68,372	77,137	78,417	79,865	84,779	91,625
Percentage British	56.9	53.8	52.5	52.3	51.1	49

	Estimate of Cargo carried per 100 tons net of Shipping Entrances: Tons weight					
	1938	1956	1957	1958	1959	1960
98	135	133	130	132	140	

The estimated weight of cargoes (excluding coal, coke and briquettes) exported from the United Kingdom last year and in the years taken for comparative purposes was as follows:

Table II—Exports by Weight (excluding coal)

	Tons weight in thousands (000 omitted)					
	1938	1956	1957	1958	1959	1960
Exports	10,500	23,880	22,555	23,496	24,277	25,140
Re-exports	970	793	522	751	796	518
Total	11,470	24,673	23,077	24,247	25,073	25,658
	Average export values per ton £					
	1938	1956	1957	1958	1959	1960
Exports	41.1	130.2	144.7	135.2	137.0	140.6
Re-exports	63.5	184.1	254.7	195.7	163.4	272.3
Total	42.9	131.9	147.2	140.1	137.8	142.2

The shipping tonnage employed in the export trade of the United Kingdom, as shown by the tonnage clearances with cargo, has been as follows:

	Tons net in thousands (000 omitted)					
	1938	1956	1957	1958	1959	1960
British	34,512	31,608	31,547	32,140	33,124	32,698
Foreign	24,367	18,308	19,144	19,252	20,828	22,108
Total	58,879	49,916	50,691	51,392	53,952	54,806
	Percentage British					
	59	63	62	63	61	60
Estimated clearances with coal at 220 tons weight to 100 tons net	17,362	5,099	4,542	2,619	2,267	3,086
Estimated clearances with cargoes other than coal	41,517	44,817	46,149	48,773	51,725	51,720
Total	58,879	49,916	50,691	51,392	53,952	54,806

Table III—Summary of Overseas Trade

Year	Imports			Exports		
	Weight Tons 000	Value millions	Average Value per ton weight	Weight Tons 000	Value millions	Average Value per ton weight
1938	67,300	920	13.7	11,470	42.9	38,196
1956	104,500	3,889	37.2	24,673	131.9	11,218
1957	104,300	4,076	39.1	23,077	147.2	9,993
1958	104,200	3,801	36.5	24,247	140.1	5,763
1959	111,900	4,008	35.8	25,073	137.8	4,986
1960	128,200	4,556	35.5	25,658	142.2	6,789

### Shipping Policy

Looking at the shipping policy recommendations submitted to the Government in relation to the deep sea liner section of the industry, of which the Association is the main representative, the following, quite shortly stated, may be said to predominate.

1. The time has come when countermeasures against flag discrimination may have to be taken. Hence, H.M. Government should equip itself with any necessary powers for that purpose and should examine, as a matter of urgency, the extent to which such powers should and effectively could be used.

2. Financial aid may be needed and would be justified if a particular section of the industry or shipping service is in peril in the face of competition of a kind which efficient commercial operation cannot effectively meet.

3. To enhance the competitive position of British shipping, further taxation relief is needed, best given in the form of increase in and stabilisation of the investment allowance, coupled with the removal of obstacles which taxation puts in the way of maintenance and development. The restrictions should be removed which prevent United Kingdom owners from taking full advantage of low taxation elsewhere in the Commonwealth.

For many years the Association has contended that the system under which taxation is levied on shipping is oppressive and misconceived in that it fails adequately to recognise the fact that a taxable "profit" does not arise until proper provision has been made for the renewal of the tools of the trade or the use of which the making of profit is dependent. On the other hand, recommendations for the adoption in the shipping trade of retaliatory methods to counter flag discrimination and as to the need in certain circumstances for Government subsidy require explanation of the developments which have led the Association to regard them as right and necessary.

Commercially, the undoubted fact is that the world supply of merchant shipping of nearly all kinds has become substantially in excess of demand. When the last war ended, the available supply of shipping had been greatly reduced by war losses, while the demand for shipping services was greatly enhanced. For these and other reasons, coupled with encouragement of accumulation of materials by general and increasing inflation, shipping enjoyed a much longer period of high demand than was the case immediately following the first world war. This and prediction of its continuance, particularly in the case of oil—prediction which proved to be over-optimistic—encouraged not only the shipowners of the traditional maritime countries to build and add to their fleets on a large scale, but also the entry into the industry of speculators attracted by what seemed a particularly profitable use of all the capital they could get.

The new device of using a "flag of convenience" whereby profits could be earned with virtual freedom from taxation added to the speculative attraction. While all this was going on in the commercial sphere, governments were adding to the supply of available shipping by the creation or extension of mercantile marines, inspired in part by the situation in which they had found themselves deprived of shipping services during six years of war and in part by their conception of national prestige, which called for the ownership of a merchant navy.

For rather more than ten years following the end of the war, this steadily growing structure was buttressed by a steady growth in international seaborne trade, which from year to year increased in volume. It needed only the slight recession in world trade which occurred in 1958 to bring about a marked recession in world shipping. The situation was quite different to that of the 1930s when a deep depression in shipping was the result of a catastrophic fall in world trade. In 1958 what was little more than a halt in the advancing tide of world trade sufficed to show that the tide of world shipping had been advancing too far and too fast.

If that situation in the shipping trade was to be regarded as a cycle of ill fortune straightforwardly attributable to commercial causes and the operation of the law of supply and demand, there would be no novelty about it. Long experience has led shipowners to recognise that such a thing, however unwelcome, has periodically to be suffered and overcome by seeing it through. Given such a situation, the policy of seeing it through, painful though it might be, would have appeared to the Association to be the right one. In that hard school, the main test would be one of efficiency. The Policy Committee was, however, forced to the conclusion that this was neither the situation nor the remedy.

In the international field of shipping it had become patent that efficiency and enterprise were no longer the sole test. Governments in many parts of the world had deliberately embarked on projects for advancement of their own national fleets in respect of which economic considerations were not the deciding factor. Thus faced with government policies subversive of the fair field of competition for which the Association has always striven, the decision followed that British shipping was entitled and compelled to look to its own Government for assistance in its endeavour to maintain itself against forms of competition beyond the capacity of efficient private enterprise to counter.

#### Flag Discrimination

On flag discrimination, the Policy Report says if "protest and persuasion fail to deter countries from practising discrimination, countermeasures offer the only other means of offsetting the damaging effects and discouraging the spread of discrimination as a feature of world trade." Emphasis is here rightly laid on persuasion. A general war of attack and counterattack would be one in which all would be losers. It would be destructive of all commercial skill and enterprise and of the economic conduct of the shipping trade which has hitherto served the world so well. Its logical end would be one-way traffic, and its price would fall to be paid by traders and consumers everywhere. If, however, in the case of the worst offenders, protest and persuasion fail, countermeasures may be the only alternative to letting evil go by default.

Subsidies as a permanent form of assistance are described in the report as offering no long term solution on the assumption that shipping is to continue to be operated on a commercial basis. The problems of British shipping so operated could not be solved in terms of continuing compensation for not carrying cargo or passengers; neither could private enterprise survive as a government pensioner. In the short term, however, financial help may be the only quick way of giving assistance in circumstances where a particular British shipping service or section of British shipping is in danger of actual or virtual abandonment by reason of competition which cannot be met by commercial efficiency because of State aid given to its competitors. The Cunard case of the replacement of the *Queens* is a case in point. In the face of competitors upheld by subsidies on a large scale, the choice was one of a measure of Government help in the maintenance of the service or its virtual abandonment. To other cases the same solution of temporary help may be applicable, given proof of an equally cogent kind in justification of it.

#### Taxation

On taxation, the main recommendations which the Policy Committee has made are consistent with those put forward over recent years in the annual reports of the Association. A claim for an increase in the investment allowance, in respect of which allowance shipping has already established a special case, may seem incompatible with the present situation in

which, by reason of depression, most shipping companies are paying little or no tax. That fact, however, does not detract from the importance of early action in the case of an industry which has necessarily to plan far ahead and which is concerned with its position when better times return. Its rightful anxiety is that when that happens it shall not again be competitively prejudiced through deprival by taxation of money needed for the healthy upkeep of its business. During the postwar period of expanding trade and opportunity for world shipping, British shipping was heavily denuded of funds needed for replacement and competitive expansion by a system of taxation which took no account of the advancing cost of shipbuilding.

Additionally in the sphere of taxation, there is sought the removal of the restrictions which by existing law prohibit a United Kingdom shipping company from taking advantage of tax free facilities within the Commonwealth. In this respect the Association is not seeking liberty for its members to go to some foreign country where tax free facilities are available, as American and other owners can do and have so largely done. The Association is protesting against the gross anomaly that a foreign competitor can go to a place within the Commonwealth, such as Bermuda, and there take advantage to the detriment of his United Kingdom competitor of facilities from which the latter is, by compulsion of law, deprived. There is neither sense nor justice in preferential treatment for the foreigner as compared with the United Kingdom owner within the Commonwealth to which the latter belongs. Stated in that way, the Association regards the case for removal of the restrictions as unassailable.

#### Shipbuilding Price Index

The General Council has continued to compile its shipbuilding price index, originally produced at the request of the Board of Trade and designed to show from year to year the trend of shipbuilding cost. The index is used by the War Risks Insurance Associations in their annual negotiations with the Ministry of Transport for adjustment of ship values for war risks insurance purposes. The index takes 1937 as its starting point as an appropriate basis of measurement of prewar level of cost. The figures for that year, for the first postwar year and for the ten years 1950/59 are as follows:—

Year of Delivery	Deep Sea Cargo Liners and Tramps	Deep Sea Tankers	Combined Figure
1937	28	28	28
1946	73	74	73
1950	100	100	100
1951	107	105	106
1952	114	108	111
1953	125	123	124
1954	136	134	135
1955	146	144	145
1956	160	153	157
1957	171	162	167
1958	178	171	175
1959	190	176	183

It is not expected that the figures for 1960 will markedly differ from those of 1959.

THE 5,500-grt sister ships *Pegasus* (ex-*Princess Joan*) and *Hermes* (ex-*Princess Elizabeth*) owned by the Epirotiki Line, are undergoing major refits in Greece in readiness for a summer cruising service between Italy, Greece, Rhodes, Cyprus and Israel, starting in June. Operating a passenger and car ferry service the two ships will sail from Venice to Piraeus, Rhodes, Famagusta and Haifa, calling at Limassol on the return of the 11-days round voyage. The Ormos Shipping Co Ltd act as general agents in the United Kingdom for the Epirotiki Line. The ships each have accommodation for 360 first and cabin-class passengers and 150 in the tourist class. All cabins are outside. A garage on the main deck of each ship accommodates 120 motor vehicles which can be driven on and off by the passengers.

A CONTRACT for a world cruise starting from Buenos Aires on 16 December 1961 by the Zim liner *Theodor Herzl* has been signed. Berths for the winter world cruise will range in price from \$3,500 to \$8,000. Though the Israeli company has been operating regular Caribbean cruises for the past three winter seasons, this planned journey will be the first world cruise of any Zim ship.

Death walked with a thirteen-foot stride through Cretaceous landscapes 120 million years ago. Tyrannosaurus, the King Lizard, twenty feet tall and fifty long, was probably the most terrible animal in an age of nightmare creatures: and all others were its meat.

While Tyrannosaurus reigned on land, deep in the seas nature and time were laying down the source materials of oilfields to sustain another age.

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## NEW COLOURS FOR SHELL TANKERS

By J. H. Kirby

Mr Kirby, marine coordinator and managing director of Shell Tankers Ltd, wrote this article for "The Shell Magazine," from which it is reproduced with acknowledgments

FOR 50 years or more, the tankers of the various Group fleets have been a familiar sight in ports all over the world, with their black hulls, white-and-buff superstructures and black decks. It was the last of these items that first attracted the attention of those of us who have been concerned with the comprehensive study of corrosion and its control that has been going on for the past eight years. Excessive corrosion had been occurring on the underside of tanker decks, and the theory was advanced that this was caused by 'sweating' induced by the constant alternation of night and day temperatures. It was suggested that this could be alleviated by painting the decks a lighter colour, which would absorb much less heat from the sun.

Laboratory tests and field trials confirmed this theory, and three years ago we decided to paint all tanker decks a lighter colour as soon as it was practicable. For the time being we picked a grass green. About the same time, however, it was suggested that there were good aesthetic reasons for painting the hulls, too, in a much lighter colour. Laboratory and field tests had not shown conclusively that this would reduce corrosion of the hull plates, but we felt that a full-scale trial was well worth while. Among other things, the appearance of our ships had, on occasions, been compared adversely with the best of the Scandinavian fleets, most of which had gone in for lighter colours for a long time—many of their vessels, indeed, look more like yachts than the tramp ships that tankers really are.

So an international *ad hoc* committee was formed to study the matter, not only to make recommendations about colour, but, with an eye firmly on cost, to work out a simplified and more easily maintained external hull-painting pattern. Application and Development Division of Shell Tankers prepared over three dozen different paint schemes, which were considered by the committee in the

model stage. After many months' work, a tentative recommendation was made that, on an experimental basis, hulls should be painted pale green, the superstructure all white, the funnel 'Shell' yellow and the decks either French grey or portland stone. It was decided to paint all new ships in these colours, rather than only one or two. It would be far less costly to overpaint the pastel colour with black, if the experiment were a complete failure, than to do the job the other way round if it were to succeed—and the latter seemed more likely.

Thus it has come about that *Aulica*, *Atys* and *Zafra* have been trading in the new colours for more than a year. The big new crude carriers—the French *Sitala*, the Dutch *Sepia* and the British *Serenia*—have all been launched in the new colours, and nine more ships still to come from the builders will also have the new look. It must be stressed that the experiment is still under way, but, with all the necessary reservations to be attached to interim conclusions, it may be of interest that very light decks, particularly in the portland stone, have given too much glare in tropical sunlight for the comfort of watch officers, and our thoughts have now turned towards a darker French grey, or something similar to the present grass green. The *eau-de-nil* green on the hull looks very well indeed when the ship has just been delivered from the builders, but it is a difficult colour to maintain. It has a tendency to break down, under the action of strong sunlight, into its component parts of yellow and blue: this shows up, for example, when plates become discoloured by rubbing alongside the berth.

And so the *ad hoc* committee is now studying a further selection of models, of which the three most promising seem to be one with a light olive green hull and a French grey deck, and two Atlantic admiralty grey hulls, one with the deck in light olive green and the other with grass green. Some of our vessels still to be launched may appear in one or other of these combinations, or something else like them. The whole experiment will probably take two or three years more to complete—not because it takes us as long as that to make up our minds which looks the nicest, but because at least 24 months will be necessary to evaluate the all-important maintenance costs.

### FOREIGN NEWS ITEMS

THE Tokyo Shipping Exchange, virtually inactive since a short period after its inception late in 1959, appears likely to collapse entirely. A new crisis threatens the Exchange with notification by the Institute of Shipping Brokers, Tokyo, that the Institute will stop financing the Exchange from March 31. The lack of support from operators and shippers, and lack of experience with the exchange system in Japan, were among the chief reasons blamed for failure of the Exchange.

THE Hitachi Shipbuilding & Engineering Co Ltd has decided to combine the second and third building berths at its Inoshima shipyard into one berth on which vessels up to 65,000 dwt can be built. The work is due to begin this autumn and to be completed by spring next year. The new berth will be the second one at the yard for ships in the 60,000-dwt class. The company also has received approval from the Ministry of Transport for the construction at this yard of two dry cargo vessels, each of 12,700 dwt, for the Great Eastern Shipping Company, of India. The first is scheduled for completion in January 1962, and the second one month later. The vessels will have 5,400-bhp diesel main engines and service speeds of 14 knots.

AGREEMENT on a pay rise for seamen reached between the All Japan Seamen's Union and shipping companies will add about Yen 2,300 mn to the companies' annual operating costs, it is estimated. Included is a raise in the minimum pay on

foreign-going vessels from the previous Yen 12,000 monthly to Yen 15,000. A survey by the Ministry of Transportation showed that the number of Japanese seamen employed by foreign lines in 1960 was nearly double that for 1959. The number rose from 104 in 1957 to 164 in 1958, 221 in 1959 and 411 in 1960. Pay rates range from U.S. \$100 to \$300 monthly.

THE 5,500-dwt *Har-Ramon*, eighth vessel of the El-Yam Navigation Company, Haifa, has been launched in Hamburg and will be the company's first refrigerator ship. Delivery is due in June. According to a report, the new vessel will mainly serve as a banana carrier, operating between South America and the United States. A sister ship, probably to be named *Har-Meron* will be launched in July and will be employed on the same service. The El-Yam company has always concentrated on bulk carrying on tramp routes, mainly between foreign ports. The *Har-Ramon* will raise the firm's total tonnage to 110,000 dwt.

AT THE BEGINNING of the year the order book of Danish shipyards was 84 vessels aggregating 742,200 grt, including 23 oil tankers of 513,500 grt. This is some 20,000 grt more than six months earlier, and corresponds roughly to two years' work. At the same time, work had been commenced on 41 vessels, of 244,300 grt, of which 15 vessels, of 78,800 grt, had been launched and were fitting out. Of the total, 76 vessels, aggregating 521,000 grt, were motorships, while eight vessels of 201,600 grt were steamships.

## NEWS FROM OVERSEAS

From THE SHIPPING WORLD'S Own Correspondents

### Norwegian Shipbuilding

THE NORWEGIAN shipyard Haugesund Mek. Verksted has launched the motor tanker *Berean*, which is being built to the order of A. O. Andersen & Co, Oslo. She is of 13,000 dwt and her cargo space has been divided into 32 tanks which will be served by 16 cargo pumps in four pump rooms. Her engine will be a Götaverken-built one developing 8,000 bhp, which is designed to give her a service speed of 15.5 knots. As this is the largest vessel so far built by the yard, considerable interest is being shown in her, the more so because her construction will be rather complicated. However this yard has made great strides in the past 10 years. Before 1950 only very small vessels had been built, and the berths and other facilities gave no indication of the developments which have taken place during the last five years or so.

In a report from the yard it is said that the purchase of a floating dock from England brought the firm a great step forward. The dock, which can lift vessels of about 18,000 dwt, has given the yard many repair jobs which would otherwise have gone elsewhere. Being situated near the main route from Europe to the White Sea, and of course near that along the Norwegian coast, the siting is excellent for vessels needing repairs. Some 600 men are at present working in the yard, which recently bought two berth cranes with a lifting capacity of 45 tons each. The building capacity is at present for vessels of 18,000 dwt but this could easily be expanded to take vessels of up to 45,000 dwt.

At Kristiansand Mek. Verksted another important "launching" event took place when the *Norbulk*, a bulk carrier of 28,000 dwt, was floated in the yard's building dock, the first ship to be built in the dock and the largest by the yard. The vessel was originally ordered by Mr Yngvar Hvistendahl, Tonsberg, as a bulk carrier of 11,000 dwt, but he soon found out that this size would be too small. He was able to interest other companies: Brodrene Jakobsens Rederi, Tromso, and Mr Sigurd B.

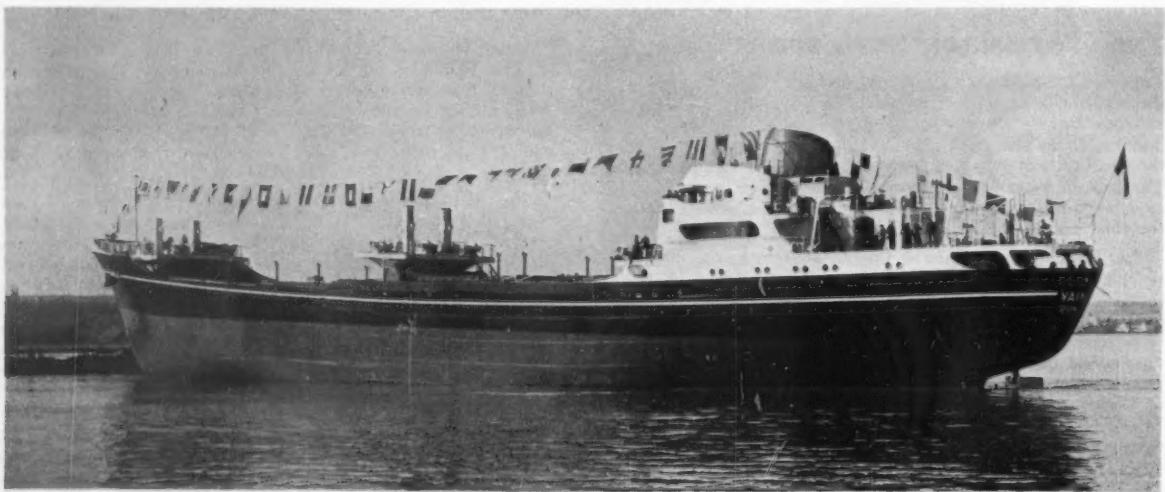
Sverdrup, Oslo. In combination these three firms formed A/S Norbulk, which will own the vessel. She has already been fixed on a 15 years' timecharter to Mr Erling Naess, New York.

In contrast to these optimistic reports, Framaes mek. Verksted, which has recently published its report and balance sheet for 1960, gives a rather pessimistic picture. On a total turnover of Kr35.3 mn the net surplus is Kr700,317 and the board has suggested an 8 per cent dividend which will reduce the surplus by Kr320,000. The financial position of the yard is sound as it has practically no debts and the banking balances are ample. In the report it is stated that an order for a tanker of about 40,000 dwt placed by Johan Rasmussen & Co, Sandefjord, has been cancelled and instead the same firm has placed an order for a bulk carrier of about 15,750 dwt to be delivered in mid-1962. At the same time the yard has obtained other benefits from the shipping firm.

In 1960 repairs were completed on 106 vessels totalling 312,000 dwt, while 129 vessels of 304,000 dwt were docked. All figures are lower than in 1959, and this is ascribed to increased competition. The yard is at present building a new floating dock. Two sections out of seven have been completed, and three more will be finished in 1961. The old floating dock has been sold to Drammens Slip & Verksted for Kr5,650,000. The new dock will have a lifting capacity of 32,000 tons. The report ends on a rather pessimistic note although it is forecast that employment in 1961 will be on a similar level to 1960, which was slightly lower than 1959.

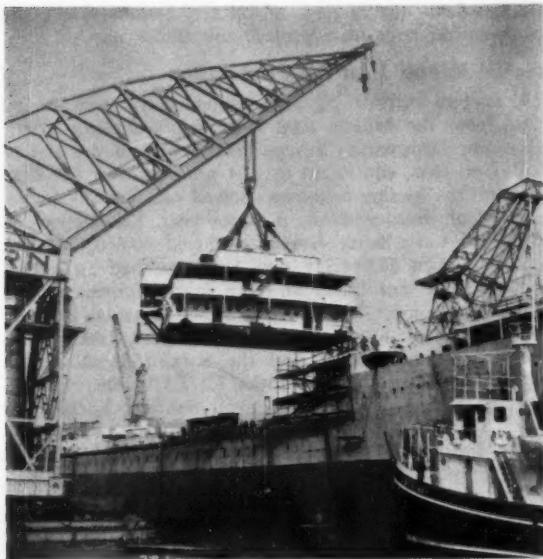
### New Maritime Administrator

MR THOMAS E. STAKEM JR has been appointed by President Kennedy to be chairman of the U.S. Federal Maritime Board and Maritime Administrator. Previously vice-chairman of the Board, Mr Stakem succeeds Adm. Ralph E. Wilson, whom ex-President Eisenhower appointed last year. However it is announced that Adm. Wilson will



FRENCH-BUILT BULK CARRIER LAUNCHED

The bulk carrier "Yainville", 3,600 dwt, was launched recently for the Compagnie Maritime et Charbonnière Worms at the Le Trait shipyard of the Ateliers et Chantiers de la Seine Maritime. The principal dimensions of the "Yainville" are length b.p. 291ft 6in, length overall 317ft 4in, breadth moulded 44ft 4in, depth 26ft 3in and draught 20ft. The propelling machinery consists of two eight-cylinder Duvant diesel engines, type 8 VOM-SR, which develop 2,400 bhp at 375 rpm to give a speed of 13.3 knots.



During the conversion of the tanker "Mar Tirreno" (ex-"Karin Maersk", 18,250 dwt) to a bulk dry cargo carrier at the Genoa yard of Cantieri del Tirreno, the bridge structure weighing 130 tons was moved by a floating crane from amidships to aft. A similar conversion is being carried out at this yard to the tanker "Ircania" (ex-"Salamis", 18,800 dwt)

serve out the remainder of his term as a Board member. The new chairman is the first to reach that position by "coming up through the ranks" of the Civil Service, having joined the old Maritime Commission in the early 1940s.

One of his first acts in office was to call a conference of the three steamship lines seeking government mortgage insurance on new or converted container ships for the intercoastal service: Luckenbach Steamship Co, American-Hawaiian Steamship Co, and Sea-Land Service Inc. Alleged delay by the Board in passing on these applications caused the Luckenbach Line, the only one currently active in the trade, to announce the termination of its service recently. American-Hawaiian, which has operated no ships for several years, at once announced that it would immediately resume service with chartered tonnage, pending completion of its proposed new ships, if its applications were granted. Sea-Land, which now operates only an Atlantic-Gulf container ship service, has said it contemplates entering the intercoastal trade.

The Luckenbach suspension was closely followed by announcement of the closing of what seemed only six months ago to be one of the brightest hopes for revival of domestic shipping on the American coasts. Erie & St Lawrence Corp, which built two new specially-designed container ships last year and reopened service between New York and Jacksonville after two decades' suspension, has disclosed that it has made its last sailing. Its *New Yorker* has been out of service for several months, and its *Floridian* was to follow into lay up on arrival from Florida on March 3. Failure of the service is attributed to intense competition by railroads, road carriers, and the trailer ships of Sea-Land Service Inc.

#### India's Second Shipyard

THE Indian Minister of State for Transport and Communications has announced that the Indian Government is proceeding with the project for the establishment of a second shipyard, at Cochin. Asked whether this shipyard will be completed during the Third Plan, he replied rather cautiously: "I cannot exactly say that it will be completed,

but I think we will have made a beginning, and we should have made a fair advance within that period." He added that, if suitable technical assistance were obtained and everything else proceeded well, there was a possibility that it might even be completed during the period.

The project for this second shipyard is included in the Draft Third Plan. The total cost is estimated at £15,000,000, and the actual amount to be allocated to it under the Plan is now under consideration. It will be given "due priority." The acquisition of the requisite land at Cochin is now being negotiated, with a view to its actual handing over to those responsible for the execution of the project in the year 1961-62. The question of obtaining foreign technical and/or financial collaboration in the execution of the project is said to be "under active consideration."

#### HARBOUR RADAR FOR MEDWAY

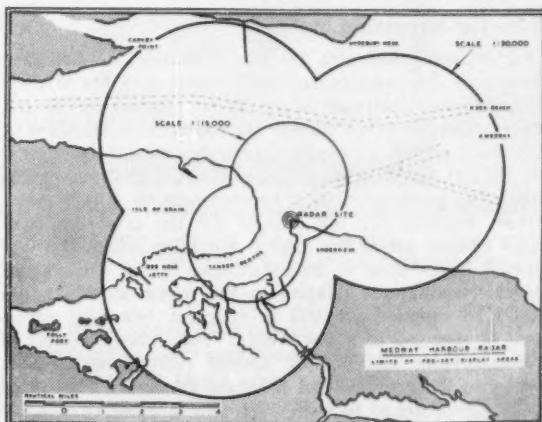
##### Decca Installation at Garrison Point

AN ORDER has been placed for a Decca Type 32 harbour radar and three of the new Decca 16-in displays by the Conservators of the River Medway, and V.H.F. R/T equipment is to be supplied by Pye Telecommunications Ltd. The equipment is to be employed by the existing Medway Port Operations and Information Service. Modernisation of the Medway Service has become necessary to deal with the increased tanker traffic berthing at the Kent Oil Refinery on the Isle of Grain, and also the rising number of dry cargo vessels coming into the river.

As an interim measure, the Conservators of the River Medway established the Port Operations and Information Service at Sheerness, with headquarters in the Signal Station, Garrison Point Fort. The station is equipped with Pye V.H.F. R/T equipment, and is served by a patrol launch fitted with a Decca D404 marine radar and V.H.F. R/T.

The Decca Harbour Radar and associated communications equipment now ordered will be installed in a new port operations building to be erected on the top of Garrison Point Fort. The station will provide detailed surveillance of all ships and craft in the area.

The 16-in displays are of a new type. The origin of each may be off-centred to a number of pre-selected positions. The natural scale of the displays on their normal range settings will be 1:30,000, and when suitably arranged the 3 displays will cover the whole area of interest from the Medway Buoy to Canvey Point up the Thames. Alternatively, displays can be switched to show a natural scale of 1:60,000 for long range use or 1:15,000 to allow an enlarged picture of the area close to the radar to be viewed, including the whole of Sheerness Harbour. Each display will incorporate an electronic interscan centred on the radar site and variable in direction and length.



Coverage of the Medway harbour radar

## **Oil Topics**

### **A THAMES DEEP-WATER TERMINAL**

A TRUNK PIPELINE for oil products running from the Thames to the Mersey, a distance of about 300 miles, is proposed by Trunk Pipelines Ltd. A Bill at present before Parliament covers the first part of the scheme, a pipeline from Canvey Island to Denham, with branch lines to London Airport and Fulham. From Denham the pipeline would then link with Birmingham and carry on to Ellesmere Port. The network would be available to any user. If the first phase of the scheme is approved, further development plans will be put forward by an associated firm, Queen's Channel Terminals Ltd. The two firms have been formed jointly by Close Brothers, Marcoil, and Collins Submarine Pipelines to handle the projects. The chief development from the trunk system will be the building of a deep-water terminal and underwater pipeline in the Queen's Channel, on the south side of the Thames estuary, north of Margate, from which the pipeline system will be fed. The terminal will comprise an octagonal tower with two vertically luffing booms carrying pipelines and flexible hoses. The hoses will be connected to the tanker's manifolds and the pipes to a pipe-band running through the centre of the tower, to which is connected another pipe running along the seabed to the shore. The tankers would be moored to dolphins on either side to keep them at a safe distance from the tower. The facilities have been designed to load or discharge two tankers of up to 100,000 dwt at a combined rate of about 8,000 tons per hour.

### **Possible Difficulties**

THE PRINCIPAL PROBLEM that the designer of the terminal will have to contend with is the lack of protection from bad weather on this section of the coast. A large tanker of the 50,000/80,000 dwt class could cause much damage to herself and to a terminal of this type if she should break loose during a gale. The designers have stated, however, that expert advice has been taken on this problem and it should prove generally possible to operate in waves of up to six feet in height. A more personal problem will face the tanker crews. When an offshore installation is used in the Middle East, ship's crews have no particular desire to go ashore. The position would be very different when the installation is in Britain and not very far from London, and with the quick turnaround nowadays achieved, easy access to shore is important.

### **Plans for Importing Methane**

SIR HENRY JONES and Mr W. K. Hutchison, chairman and deputy chairman of the Gas Council, with Mr Michael Milne-Watson, chairman of the North Thames Gas Board, and representatives of Conch International Methane Ltd, have been paying a visit to Algeria to inspect the natural gas field at Hassi R'Mel. They returned to London last week. The purpose of their journey was to obtain information required for the scheme for the importation of liquid natural gas to the United Kingdom which the Gas Council hopes soon to be submitting to the Minister of Power. Negotiations relating to the terms on which gas would be supplied are still in progress, but final agreement is expected in a few weeks. This scheme would of course involve the use of special refrigerated tankers similar to the experimental *Methane Pioneer*. Two refrigerated ships are to be built, each with a capacity of 8,000 to 10,000 tons of methane. The techniques developed for this purpose are now proving useful in an allied but

different field—the carriage of L.P.G. Comment is made on an earlier page on a project now under way.

### **Record Middle East Oil Production**

A RECORD OUTPUT of 264 million metric tons of oil came from the Middle East last year, according to the Petroleum Information Bureau. This represented a rise of 33 million tons, equivalent to 14.4 per cent over the 1959 total. All the leading countries showed substantially higher outputs compared with the previous year. Kuwait yielded 81,862,805 tons, Saudi Arabia produced 60,860,423 tons, Persia supplied 52,064,856 tons and Iraq had an output of 47,482,948 tons. Each of these four countries yielded enough oil to meet Britain's entire requirements last year. Chief among the other producing areas were Qatar, which provided 8,212,360 tons, and the Kuwait/Saudi Arabia Neutral Zone whose output was 7,273,339 tons. The remaining oil was produced in Egypt, Bahrain, Turkey and Israel. The Middle East now supplies almost as much oil as the entire world produced as recently as 1938 (when global output was 280 million tons), but in the meantime production has risen so rapidly that the region only contributed about a quarter of the oil produced throughout the world in 1960.

### **Shorter Notes**

THE FIRST demonstration in Australia of the Dracone flexible nylon barge was made recently in Cockburn Sound, Western Australia, using the facilities of BP's Kwinana Refinery. During the demonstration the empty Dracone was first hauled off its reel into the water and pumped full with 35 tons of oil. It was then towed in the Sound by a 74-hp workboat. Later the Dracone was returned to the jetty, pumped clear of oil and replaced on its reel, so that the spectators were able to appreciate the versatility of this method of water transport.

### **RECENT SHIP SALES**

PASSENGER STEAMERS *Santa Paula* and *Santa Paulina* (ex-*Santa Rosa*) (both 9,237 grt, 3,789 nrt, built 1932 by Federal Shipbuilding Co Inc.) sold by Grace Line to Typaldos Brothers Aegean Navigation Co, Piraeus, to be renamed *Acropolis* and *Athina*, respectively.

Motor tanker *Neritina* (8,222 grt, 4,788 nrt, built 1943 by Harland & Wolff Ltd) sold by Shell Tankers Ltd to Japanese shipbreakers, for £17 10s per ton light displacement, with "as is" delivery Singapore.

Cargo steamer *Nisshu Maru* (ex-*Fenix*, ex-*Pachesham*, ex-*Kainalu*, ex-*General M. H. Sherman*, ex-*Mursa*, 6,020 grt, 3,434 nrt, built Oakland, Cal., 1920 by Moore Shipbuilding Co) sold by Nippon Kaiun K.K. to Japanese shipbreakers, having been idle at Onomichi since 12 December 1958.

Cargo steamers *Eregli* (ex-*Tripoli*, ex-*Trabzon*, ex-*Isabel Moller*, ex-*Loong Hwa*, ex-*Warcuta*, ex-*War Mango*, 2,834 grt, 1,664 nrt, built 1918 by Wm. Gray & Co Ltd), *Ismet* (ex-*Ramiz*, ex-*Ioannis Frangos*, ex-*Novington*, 3,604 grt, 2,357 nrt, built Stockton 1912 by Richardson Duck & Co Ltd) and *Nadir* (ex-*Bailundo*, ex-*Wagogo*, ex-*St. Andrews*, ex-*Sofia*, 4,145 grt, 3,041 nrt, built Rostock 1914 by A. G. Neptun), all owned by Faik Zeren, Istanbul, sold to Greek shipbreakers, for £102,000 for the three.

Motor vessel *Luxmi* (4,148 grt, 2,537 nrt, built 1924 by Harland & Wolff Ltd, Glasgow) sold by Bank Line Ltd to Hong Kong shipbreakers for over £60,000.

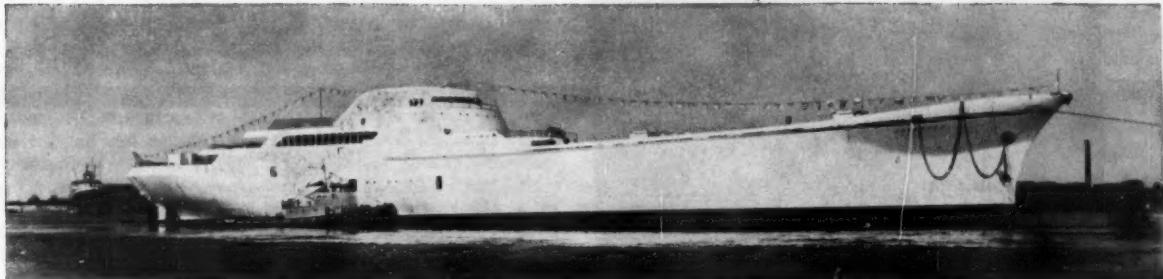
Motor vessel *Taybank* (5,627 grt, 3,431 nrt, built Belfast 1930 by Workman Clark (1928) Ltd) sold by Bank Ltd to Hong Kong shipbreakers.

Motor tankers *Ceronia* (8,059 grt, 4,627 nrt, built Schiedam 1939 by Wilton Fijenoord and *Cleodora* (7,996 grt, 4,626 nrt, built 1938 by De Schelde N.V.) sold by N.V. Petroleum Mij. "La Corona", Chiap Hua, Hong Kong, for £17 5s per ton light displacement, "as is" Singapore.

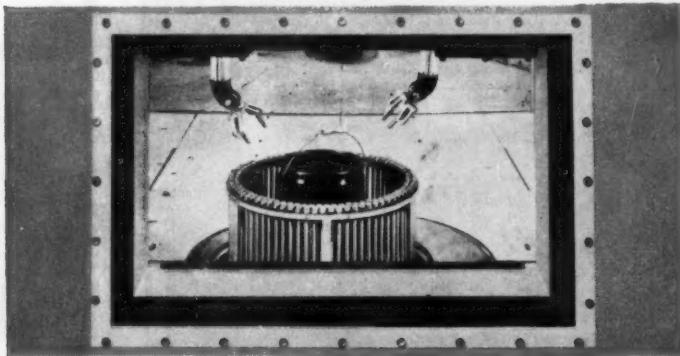
Tank steamer *Saidja* (6,671 grt, 3,801 nrt, built 1939 by Rotterdam Dry Dock Co) sold by N.V. Petroleum Mij. "La

(Continued on page 280)

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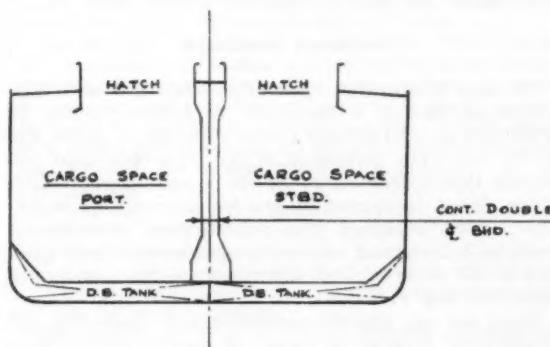
# Ore/Oil Carrier in Service

## OPERATING EXPERIENCE WITH THE "MANDO THEODORACOPULOS"

THERE was completed in Japan last year an ore/oil carrier which is unusual in that it carries bulk cargoes or oil in the same cargo compartments. This vessel, the *Mando Theodoracopulos*, is owned by the National Shipping & Trading Corporation, of New York, and was described in THE SHIPPING WORLD of 15 June 1960. Since then details have become available of the initial operating experience with the ship, together with some additional details of the design, several features of which are the subject of patents.

The design of the *Mando Theodoracopulos* was the work of a New York firm of consultant naval architects, Panagopoulos & Associates. It has the great advantage of making all the cargo spaces available either for dry cargo or for petroleum products, the full cubic capacity thus being available for either kind of cargo. A full deadweight of light bulk cargo, such as grain, fertiliser, coal etc, can be carried on one voyage, while on the next a full deadweight of petroleum products can be carried, and this includes light products such as gasoline. Split cargoes, part liquid and part dry, can also be carried simultaneously with some restrictions only for liquid cargoes which may form explosive vapours.

It may be recalled that the layout of the holds is as indicated by the midships section reproduced here. There is a continuous cofferdam-type longitudinal bulkhead, a



Outline midships section

double bottom of normal height (about 4ft 6in) and a total of eight transverse bulkheads which together with the centreline bulkhead divide the ship into 18 main cargo holds, nine port and nine starboard. The length of each hold is 45ft 6in. Each hold has a large hatch with oiltight steel cover, and the hatch size is 27ft 4in by 24ft 7in, large enough for easy discharge by grab.

When in use as an oil carrier, heating of the cargo is effected not by conventional heating coils, but in a manner specially designed for this type of ship. In way of all cargo holds, continuous lengths of  $3\frac{1}{2}$ in by  $3\frac{1}{2}$ in angle bars are installed on the underside of the inner bottom plating with both toes welded to this plating. Steam is led through these angle bars, and heat is transmitted to the oil cargo through the tank top plating. A total of about 10,000ft of angle bar is used. Extensive tests and actual operational experience have shown that this method of cargo heating is very effective. It will be appreciated that the heat from the steam will disperse through the  $\frac{7}{8}$ in bottom plating, which will be at a lower temperature than normal heating coils.

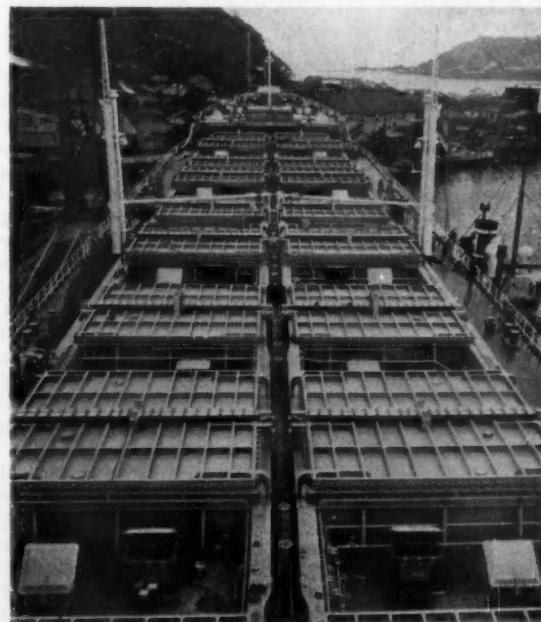
### PRINCIPAL PARTICULARS

Length o.s.	644ft 6in
Length b.p.	615ft
Beam, moulded	84ft
Depth, moulded at side	44ft
Draught, summer	32ft 8in
Corresponding deadweight	28,326 tons
Cubic capacity all holds, grain	1,378,945 cu ft
Cubic capacity as oil carrier, 100% full	236,939 bbls.
Fuel oil capacity	3,650 tons
Speed fully loaded, on trials	17.1 knots
Service speed, fully loaded	15.0 knots

When carrying cargoes of high density, such as iron ore, only alternate holds are used. Holds Nos 1, 3, 5, 7 and 9 port and starboard are loaded, leaving Holds Nos 2, 4, 6 and 8 port and starboard empty. Stiffeners on the transverse bulkheads are all located in the empty holds, thus simplifying grab discharge.

In addition to being well suited as a bulk carrier, the vessel has facilities to make her competitive with any normal tanker of similar size. A complete cargo piping system is installed and cargo tank ventilation and other systems are all suitable for carrying petroleum products of all grades, including gasoline. Cleaning of the cargo spaces after carrying oil has proved to be easy, less time consuming and less costly than in a regular tanker, mainly as a result of the fact that the inner bottom in way of the cargo spaces is smooth, without longitudinals or heating coils. The longitudinal bulkheads have no structural members in way of the cargo holds, because all stiffeners and webs are located inside the cofferdam type bulkhead. The side framing is mainly vertical, thus further facilitating washing and cleaning of the holds by means of a Butterworth system.

After her delivery to owners, the *Mando Theodoracopulos* lifted a cargo of ore from Lourenco Marques to Tobata, Japan, from where she ballasted to Kuwait to



Looking forward from the bridge, which is right aft, the main hatch covers and tank hatches can be seen

load a cargo of crude oil for discharge at Montevideo. From Montevideo she proceeded to the River Plate where she loaded a cargo of grain for discharge on the west coast of Italy. After discharging the grain cargo, she ballasted to Sidon, Lebanon, to load a cargo of oil for U.S.N.H., from where she proceeded to the U.S. Gulf to load a cargo of grain for Antwerp/Rotterdam.

This shows how ballast voyages have been minimised. Under the present market conditions, the owners felt that this was the optimum way of operating this vessel, although she could be employed solely either as a tanker or as a bulk carrier if either of these trades showed a more profitable rate.

#### Satisfactory Experience

The owners' operational experience so far with loading, discharging and switching over from dry cargo to oil and from oil to dry cargo has been satisfactory. A full cargo of iron ore was discharged in Tobata in a little over 24 hours. Since this was the vessel's first cargo, many owners and charterers, together with representatives of many ore exporting firms, witnessed the discharge. The vessel's hatch openings proved ample for the grab equipment, and damage was limited due to the box-like arrangement of the cargo compartments. The vessel was easily cleaned and swept by the crew en route to the next loading port in Kuwait. After the oil cargo was discharged in Montevideo the vessel was cleaned for grain at sea in a matter of less than 72 hours, utilising the crew only. Loading this vessel, exceptionally large by Plate standards, did not involve any difficulties and stevedores were happy especially since three grades of cargo were loaded, which were easily separated due to the compartmentation of the vessel.

Since the vessel has a conventional double bottom and the cargo holds are arranged similarly to a normal dry cargo ship, the insurance cost for grain cargoes was found to be greatly reduced as compared to a normal tanker. No grain fittings of any kind are required in the cargo holds. The capacity of the hatch coamings exceeds 2½ per cent of the hold capacity, and they therefore qualify as grain feeders.

The ship is of all-welded construction, except for a total of four shell plating seams each on port and starboard sides, riveted connections between sheer strake and upper deck stringer plate, upper deck and longitudinal hatch coamings, and riveted doubler plates on the upper deck. The inner bottom plating in way of the cargo holds has a thickness of  $\frac{3}{8}$  in, sufficient to withstand ore cargoes and grab discharging. Framing in the bottom, inner bottom and upper deck is longitudinal. Transverse framing is used for the sides. There is a heavy web frame in the side on every fourth frame. Two horizontal side stringers are used, inclined at 30 degrees to prevent cargo from remaining on top of them. Transverse bulkheads are made of flat plate, with vertical stiffeners and web frames, and two horizontal girders inclined at 30 degrees in positions corresponding to the side shell stringers. As mentioned before, bulkhead stiffeners etc. are arranged so that the holds normally intended for carrying iron ore have smooth sides, offering the least interference to cargo.

Oil- and gastight steel covers are provided for all hatches. Each hatch cover consists of two sections, one of which opens in a forward direction, and the other aft. They are stowed horizontally, forward and aft of their respective hatch openings. To make this feasible, alternate coamings are made high and low, the coaming height above deck being respectively about 5 ft 7 in and 4 ft. The hatch covers are interconnected by wire rope, allowing simultaneous operation of all nine covers on one side of the ship by a single winch, port and starboard. Pro-

visions have been made for easy disengaging of the connections to enable individual operation of each section.

When carrying petroleum products, the large hatch covers remain closed. For that case, small tank hatches are fitted for access to the cargo spaces, fitted with ullage holes etc. The covers of these tank hatches are specially constructed to make it possible to use them as hold ventilator cowls when dry cargo is carried. Two of these tank hatches are provided for each cargo space, one for supply of air and one for exhaust. Access to the compartments of the centreline cofferdam is provided through manholes located on the upper deck between the cargo hatches.

There are two 14 in main suction lines running through the centreline cofferdam, with 10 in branch lines to a bell mouth in each cargo space. In addition, there are two 6 in stripper suction lines, also running through the centreline cofferdam, with 6 in branches to suctions located in the bilge well of each cargo space. Provisions are made for the carrying of separate cargos in two groups of tanks.

In the main pump room there are three centrifugal main cargo pumps of 1,000 tons per hour capacity, made by the Worthington Corporation, driven by steam turbines of the same manufacture. There are also three duplex-type reciprocating stripping pumps of 150 tons per hour each. From the main pump room, two 12 in main filling or discharge lines lead to the midships loading and discharging station on the upper deck, together with one 6 in stripper discharge line. There are also two 12 in direct filling lines which allow loading the cargo spaces while bypassing the pump room. When the vessel is in use as a dry cargo carrier, the stripper lines to the cargo spaces are used as bilge and ballast lines.

#### Machinery Installation

The ship is propelled by a single-screw geared turbine installation having a maximum continuous output of 11,000 shp at 106 rpm and a normal output of 10,000 shp at 103 rpm. The turbine is of the cross-compound all-impulse type manufactured by the Uraga Dock Co Ltd, Uraga. Steam is supplied by two two-drum D-type water-tube boilers equipped with superheaters, economisers, steam air-heaters, and internal desuperheaters. Steam pressure is 450 lb/sq in, and temperature at the superheater outlet 750 deg F.

There are two 400-kW turbogenerators, generating AC at 450 volts, 3 phase, 60 cycles. On trials, fully loaded, a speed of 17.1 knots was attained with the engine delivering the maximum continuous output of 11,000 shp.

#### BRITISH STANDARDS FOR CRANES

Revised editions of two important British Standards for cranes have been issued. They are B.S.2573, "Permissible stress in cranes: Part 1: Structures," and B.S.466, "Electric overhead travelling cranes for general use in factories, workshops and warehouses." B.S.2573 has been revised as a result of experience gained since it was first published in 1955 and the new edition is intended to form the basis for the design of all types of cranes. The standard has been considerably expanded to include guidance on many aspects not dealt with in the 1955 edition—basic stresses in bending for lattice girders and trusses, effective lengths of struts, basic shear stresses in web plates and minimum thickness of web plates, and the proportioning of web stiffeners. Metric versions of the tables are included as an appendix. B.S. 466 has also been extensively revised and now classifies cranes according to their intended duty; it also requires the crane structure to be designed in accordance with B.S.2573. Copies of these standards may be obtained from the British Standards Institution, Sales Branch, 2 Park Street, London W1, at prices of 12s 6d and 10s respectively. (Postage will be charged extra to non-subscribers.)

# Fire Protection in the "Oriana"\*

METHODS IN LATEST BRITISH PASSENGER LINER

By J. Melville

FIRE PROTECTION in the *Oriana*, as in all other passenger liners, consists of three separate phases:

1. Fire Prevention
2. Fire Detection
3. Fire Extinguishing

and coupled with No 3 is access to survival craft for passengers and crew if, for any reason, the fire gets beyond control. It is proposed to deal with the subject in the above order.

## Fire Prevention

To meet the rules laid down by International Convention three basic methods can be adopted, known as Methods 1, 2 and 3, and they all have certain fundamental requirements:

- (a) The hull and superstructure must be of steel (or equivalent material) and must be subdivided into a series of vertical zones by Class A divisions not more than 131ft apart.
- (b) Accommodation spaces are to be separated from machinery, cargo and service spaces by Class A divisions.
- (c) Deck coverings are to be of a material which will not readily ignite.
- (d) All stairways, with minor exceptions, are to be of steel (or equivalent material) and shall be enclosed by Class A divisions.

Simply stated, the object of these regulations is to restrict the area in which a fire can function and yet allow it to be fought from all sides, but at the same time ensure access around the part of the ship affected by the fire.

For the new P & O-Orient passenger liner *Oriana*, we are only concerned with Method 2 fire protection which requires the fitting of an automatic sprinkler and fire alarm system for the detection and extinction of fire in all spaces in which a fire might be expected to originate, generally with no restrictions on the type of internal divisions in the spaces protected. The owners of the *Oriana* decided upon Method 2, for two main reasons:

1. They have been very satisfied with the performance of sprinkler installations in many previous vessels.
2. They did not wish to have any restrictions placed upon them in the use of materials for decorations, furniture and fittings, which provide amenities for passengers and contribute to their comfort.

The general outline of the *Oriana* showing the main fire-resisting divisions is shown on Fig 1. It is not quite as simple, however, as it looks from the drawing as all sorts of steps and recesses occur. These are expensive, but unavoidable if

\* Abstracts of a paper contributed to a symposium on fire protection at sea organised by Turners Asbestos Cement Co Ltd. The author is technical manager, Vickers-Armstrongs (Shipbuilders) Ltd.

an economic arrangement of cabins is to be achieved. These divisions must be insulated with fire resisting material to suit conditions in the vicinity. There are several ways in which this can be done, e.g. by sprayed asbestos, mineral wool or by non-combustible sheets listed under proprietary names composed of asbestos fibre, hydrated lime and silica. These sheets are fitted to grounds of similar material and combined with an air space, take the place of plywood linings, and have the advantage that they can be veneered with hard or soft plastic or with timber to suit the scheme of internal decoration. To restrict further the spread of smoke and flame, draught stops are fitted behind ceilings and panelling, and the back of lining and panelling is also covered with a flame resistant solution.

Control stations, which include radio room main navigating position, gyro room, emergency generator etc, are also isolated by Class A bulkheads and decks.

Fitting the *Oriana* with an aluminium alloy superstructure gave advantages to the design, but also brought difficulties, not the least of which was fire protection. Aluminium alloy softens at a much lower temperature than steel, and the Rules state that the temperature rise of the metallic cores of Class A divisions when exposed to the Standard Fire Test shall have regard to the mechanical properties of the material. This involved fitting additional appropriate insulation on the fire zone divisions. Both sides of all aluminium alloy fire zone bulkheads must be insulated, and the thickness of the non-combustible sheets was increased from  $\frac{1}{2}$ in for steel bulkheads to  $\frac{3}{4}$ in for aluminium alloy bulkheads.

Provision also had to be made to ensure that in the event of fire, arrangements for stowage, launching and embarkation into the lifeboats were as effective as if the superstructure was of steel. To meet these requirements, the insides of the deckhouse sides were insulated in way of all the boat davit supports.

In carrying out this work, the materials used comprised 112,000 sq ft sprayed asbestos; 65,550 sq ft mineral wool; and 152,000 sq ft non-combustible sheets from 1-3/16in to  $\frac{1}{2}$ in thick with 20,000 lin. ft of grounds. The fire resisting divisions must have doorways for access into and out of the various compartments, and over 150 hinged-type fire-resisting doors arranged so that they close automatically against a list were fitted, in addition to 38 vertical or horizontal sliding shutters, some as large as 12ft wide by 7ft 3in high. These are arranged with rollers and tracks and close automatically.

## Fire Detection

Detection is dealt with in various ways, and must include the human one of fire patrol. Too much stress cannot be laid

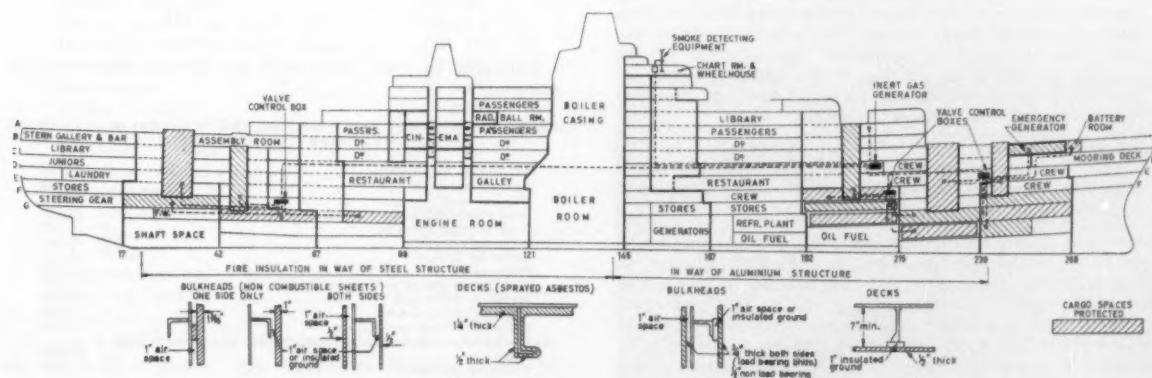


FIG 1. General outline of the "Oriana" showing the main fire-resisting divisions

on the necessity of organising and maintaining an efficient fire patrol system. On the *Oriana* this has been left very largely to the ship's officers, and every member of the crew not on special duty has been allocated a definite task in case of fire. With a crew of 900 this would seem to be a relatively simple task, but it took a great deal of serious thought and planning.

Fire detection patrol has a number of aids, some visual, some nasal and some automatic. An example of visual assistance is the provision of apertures in the ceilings through which smoke, which may be generated by smouldering behind the panelling, can be detected. These apertures have been embodied in the recess in the ceiling for the sprinkler rose. The patrol has a ready means of directing the commanding officer's attention to an outbreak of fire by sounding the manual fire alarm.

More positive arrangements, eliminating, as far as possible, the human one are provided. Nineteen cargo and large store room spaces are each arranged with a smoke detecting system. Passenger and crew spaces are all arranged with an audible fire detecting system at each sprinkler installation. This alarm is operated by the water flowing through the control section as soon as the sprinkler head operates, and these alarms also record in the wheelhouse.

#### Fire Extinction

If fire does break out it is essential that it be prevented from spreading and be extinguished as quickly as possible. In the *Oriana* the following methods of fire extinction are arranged:

*Cargo spaces.*—These are covered by the inert-gas system which operates at all normal times with one of the exhaust fans running and the inert-gas generator ready to start. The arrangement in design form is shown cross-hatched in Fig 1. If smoke is discovered at the panel in the wheelhouse, the inert-gas generator is started on atmosphere by the engineer officer detailed for this work.

The volume of the largest of these spaces, No 3 hold and dependencies, is approximately 85,000 cu ft. The generator fitted supplies 25,000 cu ft of inert gas per hour at the pressure of 3 lb/sq in, and this meets the requirements of the Ministry. The composition of the gas generated is approximately 85 per cent nitrogen, 14 per cent carbon dioxide, and this consumes 20 gallons of marine diesel fuel per hour. Cooling water is provided at the rate of 3,000 gallons per hour at 10 lb/sq in.

*Passenger, Crew and Other Patrollable Spaces.*—As the owners decided on Method 2 of fire protection, a Grinnell automatic sprinkler system was fitted. This comprised 48 separate installations with a total of 5,000 sprinkler heads. Each of these installations is supplied from:

- (a) A fresh water pressure tank of 5 tons capacity at 120 lb/sq in working pressure and automatic electrically-driven pump having a capacity of 134 tons/hour at 100 lb/sq in situated in the engineroom.
- (b) Because of the aluminium alloy superstructure, the Ministry of Transport laid down that a second tank and pump be fitted remote from the boiler and machinery spaces, the source of power for this second pump being from an automatically-started diesel engine. This automatic diesel engine stand-by pump for sprinklers was increased to 362 tons/hr, at 105 lb/sq in (for Mulsi spray purposes in machinery spaces which are detailed later), and was left set as supply to the sprinkler system.

The sprinkler heads open when the temperature exceeds 155 deg F in ordinary spaces and not more than 200 deg F in galleys or other hot spaces. They must not be more than 13ft apart.

*Machinery Spaces.*—In the *Oriana* the machinery spaces are protected by Mulsi sprayers fitted to a fixed installation of pipe work for the protection of the tank top and oil risks above floor plates, such as fuel pumps, oil coolers, oil separators, lighting-up units and boiler firing points. In addition hydrant valves are provided to which special diffuser nozzles can be connected to attack small fires in the incipient stages. If fire spreads the appropriate valve controlling the section either above the floor plates or tank tops is opened and the water,

discharging from the sprayers in the form of velocity heavy spray, cools the structure and controls the outbreak. Further sections can be operated, as necessary, to complete the control of the fire. The water supplied is provided by an electrically driven Mulsi-spray pump of 362 tons/hour capacity at 80 lb/sq in, fitted in the stabiliser compartment and is entirely automatic in operation, starting immediately any one of the valves is opened.

The capacity of the machinery spaces called for a second pump for the Mulsi-spray equipment, but as a second diesel-driven sprinkler pump had already been provided, it was agreed that if this pump was increased in capacity, it would serve as the second Mulsi-spray pump providing it was always set for automatic operation on the sprinkler installation. Should the primary spray pump fail to start for any reason, pressing the start button for the diesel-driven pump brings this unit into action.

A total of 210 hydrants are fitted in the *Oriana* with 261 hoses each 60ft long with nozzles and the necessary couplings. Various portable fire extinguishers are supplied. All ventilation fans are capable of being stopped from a central position, and all ventilation inlets and discharges can be closed down to exclude air.

#### Fire Protection When Under Construction

Carefully worked out arrangements were used to protect the *Oriana* during construction both on the berth and at the dock-side. A patrol system on the key and clock system was continuously used with an interval not exceeding 1½ hours between visits to each key. The team consisted of four patrol men, with a leading fireman and the deputy fire officer, with an additional four auxiliary firemen during the fitting out period.

The sprinkler system was progressed at a very early date, and the first installation was in operation from the supply tank at 120 lb/sq in six months before launch, while 11 installations were completed four months before launch, with an alarm signal from the pressure tanks to the fire station. By the launch date 18 out of the 42 installations were in service. At the fitting out berth two trailer pumps were permanently installed and six lines of hoses connected to portable valves on the vessel, while the fire float was berthed aft. The usual hand appliances were distributed throughout the *Oriana*. "No Smoking" notices were prominently exhibited, and the rule was rigidly enforced. All equipment was checked at each starting time and the alarm tested daily.

The necessity of these stringent precautions can be seen from the number of small fires reported.

#### Before launch

No of calls	14
No of incidents (apart from calls)	14

#### During fitting out

No of calls	38
No of incidents (apart from calls)	41

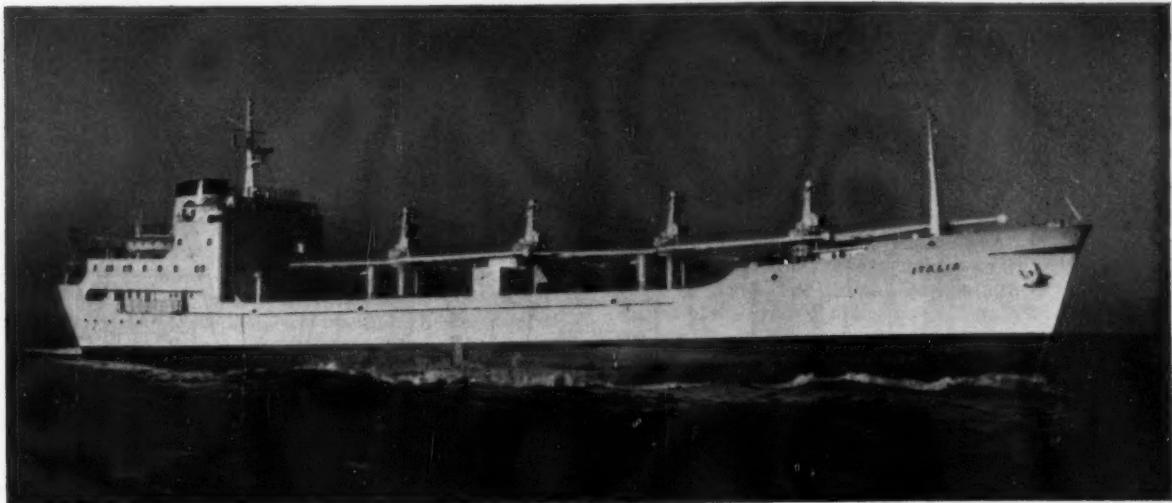
#### During dry-docking and sea trials

No of calls	8
	115

Only one of these fires could be directly attributable to smoking.

#### APPROXIMATE NET COST OF FIRE PROTECTION (EXCLUDING NECESSARY STRUCTURE)

	£
Watchmen and firemen	11,000
Sprayed asbestos	22,000
Mineral wool	29,000
Non-combustible sheet and grounds	25,000
Fire-resisting doors etc.	20,000
Inert gas system	10,000
Mulsi spray	120,000
Fire system piping and valves	27,000
Hoses, hydrants etc.	21,000
Portable extinguishers	5,000
Electrical fittings, wiring, etc.	2,000
Sundry items: fire-resisting paint, fire dampers, draught stops etc.	10,000
Insurance (all risks)	20,000
Approx. total	100,000
	£422,000



## Cargo Vessel "Italia"

### NEW TYPE OF SHIP FOR SVENSKA LLOYD

THE FIRST of a series of three vessels constructed for the Rederiaktiebolaget Svenska Lloyd, Gothenburg, has entered service. This ship, the *Italia*, 4,575 dwt, has been built by Lindholmens Varv A/B, Gothenburg. She is the result of several years' cooperation between her owners and the builders, and represents a means of putting to practical use, on their regular Mediterranean routes, the experience of unitised cargo handling in modern vessels which the owners have gathered over a number of years on the ships running between Sweden and England.

The economics of running a ship are largely influenced by the costs of cargo handling and stowage, and prolonged studies were therefore devoted to the problem of reducing these costs as much as possible. These studies pointed to the extension of the hatches to cover practically the whole width of the ship—and to come close to the transverse bulkheads—as being an essential factor. To benefit fully from such an arrangement, the construction of the frames, beams and stringers etc would also have to be such that they would not obstruct the movement and stowage of goods.

The principal particulars of the *Italia* are as follows:

Length o.a.	...	...	349ft 5in
Length b.p.	...	...	321ft
Breadth, moulded	...	...	47ft 6in
Depth, moulded to upper deck	...	...	30ft 3in
Depth, moulded to second deck	...	...	19ft 10in
Draught, loaded	...	...	22ft 9½in
Deadweight	...	...	4,575 tons
Gross tonnage	...	...	3,758 tons
Net tonnage	...	...	2,016 tons
Machinery output	...	...	3,000 bhp
Speed on trials, mean	...	...	15.75 knots
Cargo capacity			
Grain	...	...	240,000 cu ft
Bale	...	...	219,000 cu ft
Wine	...	...	195 cu m
Water ballast (663 tons available for fuel)	...	...	800 tons
Fuel oil tanks	...	...	663 tons
Fresh water tanks	...	...	100 cu m

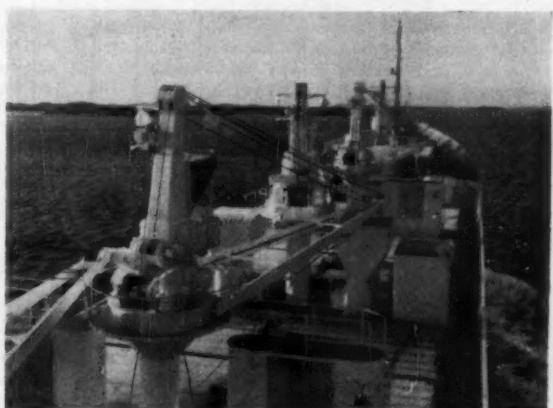
In the *Italia* the deck overhang is nowhere more than 4ft 3in, which means that horizontal shifting of goods is eliminated. Each cargo unit can be lowered directly into its final position, or lifted vertically from its posi-

tion, by means of deck cranes. In point of fact, deck cranes can only be used to their full advantage in a ship of this type of design. The use of fork-lift trucks in the holds is no longer required.

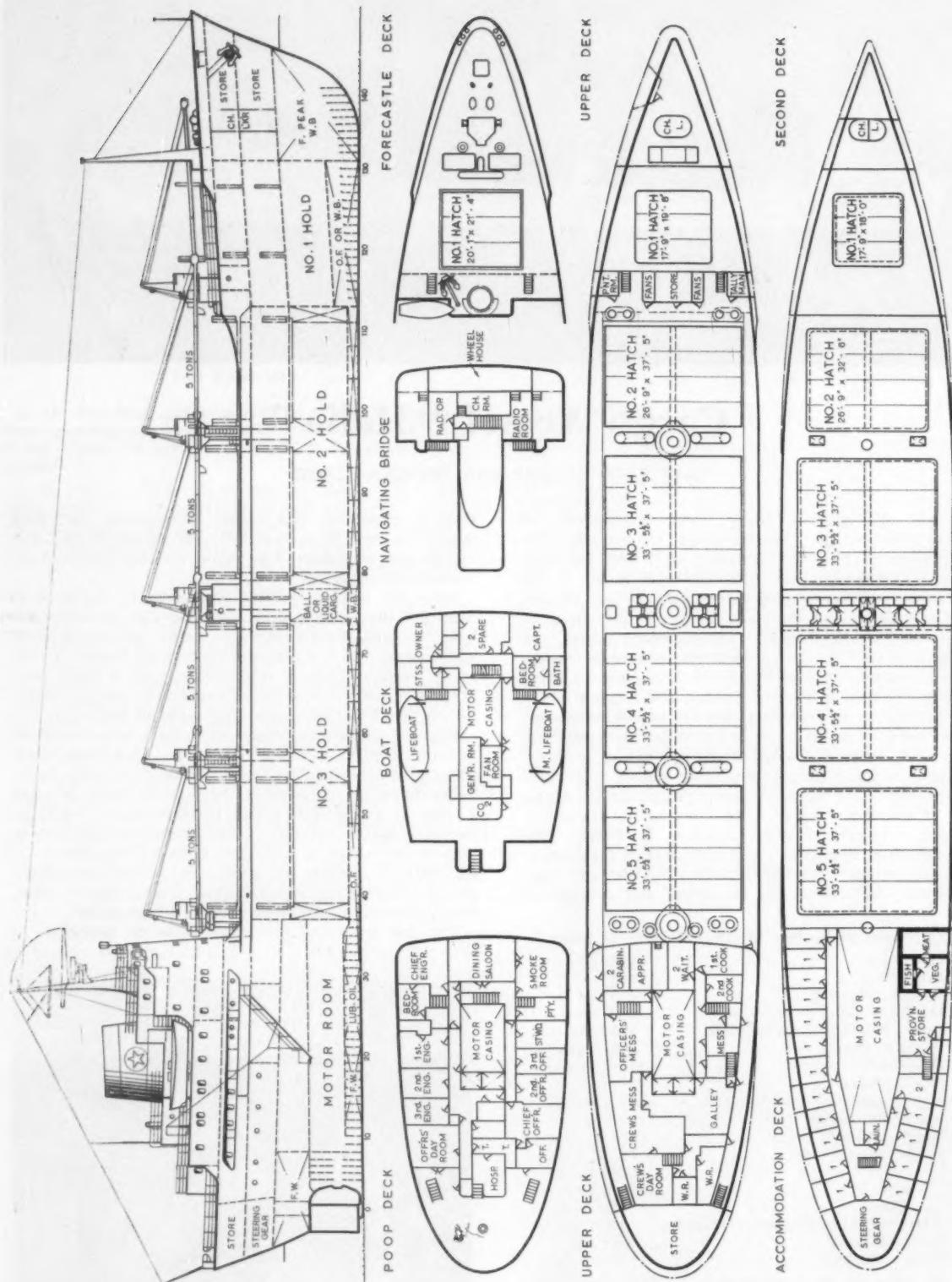
Since the hatches on the lower deck are as large as those on the weather deck, the ship can be compared, when carrying timber cargo or other cargoes in bulk, with a single decker equipped with the large hatches usually to be found in coasters. The construction of lower deck hatches provides the required tweendeck area for carrying various kinds of cargoes for different ports.

Engine room and accommodation have been placed aft in order to make as much as possible of the cargo space rectangular in shape. The forward part of the cargo holds, being shaped by the lines of the ship, has been arranged so that at a later date it can be converted into a refrigerated space if required. There is nothing, however, to prevent this space as it is now arranged being used for the rational handling of goods. Deep tanks principally intended for the carriage of liquid cargo, especially wine, have been arranged between the two large holds.

The hull form and lines, as well as the propeller, of



View looking forward showing the ASEA deck cranes



General arrangement of the cargo vessel "Italia," 4,575 dwt, built by Lindholmens Varv AB, Gothenburg, for Rederiaktiebolaget Svenska Lloyd, Gothenburg

the *Italia* were tested at the ship testing laboratory in Gothenburg. The hull has been built using longitudinal framing in the double bottom and in the upper deck. The bulkheads are mostly of corrugated construction and the hull and stern frame are completely welded.

#### **1. in Decks**

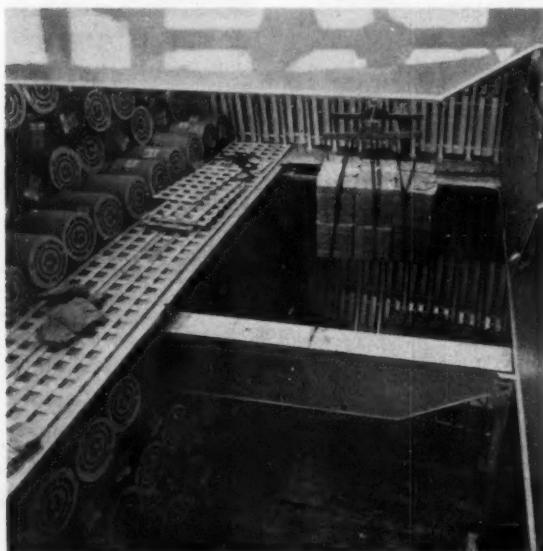
In order to obtain the sectional area of material required in the upper deck, special arrangements have been necessary in regard to the exceptionally large hatches; and the longitudinal strength required has been obtained by making the hatch coamings continuous over the ship's length and joining them to the deck house sides aft, as well as by increasing the deck plates to a thickness of about  $1\frac{1}{4}$  in—a remarkable thickness for a ship of less than 5,000 dwt.

Between the hatches, the weather deck has been raised to the same level as the hatch covers, resulting in a trunk which extends throughout the length of the cargo holds. The hatch covers on the second deck, which are flush with the deck, are also made of steel but, as the ship is built as a closed shelterdecker, they are not watertight. All the covers are of Lindholmen's own construction.

Each of the four after hatch covers is made in four sections and joined by butt hinges. When opening the weather deck hatch covers, two sections move forward and two aft. The three after hatches are 33 ft  $5\frac{1}{2}$  in by 37 ft 5 in, while No 2 hatch is somewhat shorter and on the second deck is also of less width. The hatches for No 1 hold are also made of steel but are smaller than the others. The covers are opened and closed by means of the deck cranes.

#### **Built-in Wine Tanks**

In the lower hold, between Nos 2 and 3 holds, there are six built-in wine tanks each of about 25 cu m capacity, and in the tweendeck immediately above there are four smaller tanks, each of about 12.5 cu m capacity. Water ballast tanks extending in the double bottom to the centre keel are fitted between the lower tanks and the ship's side. On the starboard side of the tweendeck, beside the wine tanks, there is a pump room with pumps for handling the wine, and on the port side the emergency fire



Looking down into one of the holds. The fabricated hatch beams which support the steel covers are prominent

pump, as well as separate fresh water pumps. After sandblasting the wine tanks were treated with Durofilm.

The *Italia* is rigged with two masts which are used for navigation lights, signals, radar etc, the after mast being telescopic. All the deck cranes have been supplied by ASEA. The forward crane has a lift of 3 tons at 160 ft/min, while the other four each lift 5 tons at 125 ft/min. The reach is 47 ft 6 in, and the speed is controlled by the Ward-Leonard system.

The windlass is equipped to handle 44.5-mm special steel chain cable and is driven by a DC motor. On the poop deck there is a 3-tons capstan which has been supplied by ASEA. The steering gear is also of ASEA make and is of their latest rotary-piston type. This is based on the use of curved pistons having a rectangular cross-section, moving in a circular housing. The pistons are placed on each side of a partition inside a ring-shaped chamber with one end resting against a tiller. Oil forced under pressure between the partition and one or other piston moves the tiller.

#### **Accommodation**

The accommodation is arranged aft and, with the exception of the captain's dayroom and chief engineer's cabin where veneered panels have been used, is panelled with laminated plastic. On the tweendeck there are 17 cabins for seamen, motormen and POs, while on the upper deck there is a provision store, refrigerated store, apprentices' cabin, two double-berth cabins, messrooms for crew, cooks and officers, and a dayroom for the crew. The galley adjoins the messrooms.

On the poop deck there are cabins for eight officers, a hospital, the officers' dayroom, dining saloon, smoke-room and the deck office. The owner's cabin, captain's suite and the stewardess's cabin is on the boat deck. The wireless operator is housed on the deck above, which contains the wheelhouse and radio room.

The propelling machinery consists of a Lindholmen-Götaverken diesel engine having eight cylinders of 520 mm bore and a stroke of 900 mm. The engine is normally-aspirated and has an output of 3,000 bhp at 116 rpm. Electricity for power and lighting is obtained from three Hedemora-Götaverken type H5 240/360, five-cylinder, 210-bhp diesel engines, direct-coupled to 140-kW 230-volts DC Thrigé generators. There is also a 25-kW harbour generator. The supply is at 220 volts, and all generators are connected for parallel operation.

#### **HYDRAULIC AXIAL PISTON UNITS**

THE marketing rights for Hydro-Titan hydraulic axial-piston units in the United Kingdom and the Commonwealth have been acquired by Keelavite Hydraulics, Allesley, Warwickshire. There are 16 of these units which may be used either as pumps or motors, depending on the mounting and control mechanisms. As pumps the units are available with capacities from 3.9 gallons/min to 2,800 gallons/min at standard speeds of revolution. Maximum pressures are high: up to 3,500 lb/sq in for small units and 5,000 lb/sq in for the larger units, where intermittent peak pressures are required. As motors the torque ranges from 9.5 lb/in to 54,700 lb/in per 100 lb/sq in.

The units are usually mounted in a standard housing of which two main types are available. The first allows the unit to be used as a fixed-capacity pump or motor, whereas the second type is for variable-capacity units. In the latter case several control methods are available, ranging from a simple handwheel to complex and exact electro-hydraulic servo systems. The working parts of the unit are contained in a steel body which can be moved through an angle relative to the shaft. Such a movement changes the stroke of the pistons and in consequence the output of the unit—if it is used as a pump, or the speed of the shaft if it is used as a motor. Variable units are completely reversible as regards oil flow or shaft direction, while the units themselves can operate in any position.

## NEW CONTRACTS

Shipowners	No. of Ships	Type	Tons d.w. (gross)	Dimensions (ft.) L.b.p.(o.a.) × B × D.(dft.)	Delivery	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
<b>Overseas Yards</b>										
A/S Nortank & Co, Oslo Skibs A/S Agnes, Mandal	1	Cargo	15,000	—	1963	—	Diesel	—	—	Bergens M.V. Uddevalavarvet
Bernhard Schulte	1 (509)	Bulk carrier	17,700	—	1962	15.75	7-cyl G.Y.	8,750	Shipbuilders	Jos. L. Meyer
—	4	Cargo	5,000	—	1962	14.5	Diesel	—	M.A.N.	—
—	—	Bulk carriers	35,000	—	—	—	Diesel	—	—	—
—	1	Bulk carrier	—	—	—	—	Diesel	—	—	Cant. Riuniti dell'Adriatico

## LAUNCHES

Date	Shipowners	Ship's Name and/or Yard No.	Type	Tons d.w. (gross)	Dimensions (ft.) L.b.p.(o.a.) × B. × D.(dft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
<b>Yards in Great Britain and Northern Ireland</b>										
Feb. 14	—	Ivana (2542)	Yacht	(200)	—	—	Tw.-scr. diesel	—	—	Vospers, Portsmouth
Mar. 2	S. J. Jeffery	Fairwood II (248)	Yacht	(150)	—	—	Tw.-scr. diesel	—	Rolls-Royce	Clelands (Successors)
Mar. 2	Bruce's Stores (Aberdeen)	Spinningdale	Trawler	(48)	74 × 19.5 × 10.5	—	Diesel	264	Lister Blackstone	John Lewis & Sons, Montrose
Mar. 3	Lowland Tanker Co	Border Falcon (1262)	Tanker	19,000 (13,000)	535(569.25) × 72.5 × 41(31.5)	13.75	6-cyl Doxford diesel	7,500	Hawthorn Leslie	Smith's Dock Co
<b>Overseas Yards</b>										
Feb. —	East German Govt.	Bohlen	Tanker	(8,000)	—	—	Diesel	—	—	Admiralty Dockyard, Leningrad
Feb. 10	Oakland Shipping Corp	Zarathustra (52)	Cargo	15,000 (10,900)	—	—	Sulzer diesel	—	Shipbuilders	Iino S.B. & E. Co
Feb. 12	Sicilnaviglio S.A.	Portovenere (162)	Cargo	15,800 (11,190)	507.33 × 69.67 × 40.2(28.58)	15	Diesel	8,400	Fiat	Officine di Const. et Rip. Navali di Taranto
Feb. 19	Jugobanka, Beograd	Ljubija (232)	Bulk carrier	18,400 (13,750)	527.58 × 70.58 × (29.5)	15	B & W diesel	8,300	Shipbuilders	Brodogradiliste "Ulanik"
Feb. 21	Rederi A/B Rex	Husaro (365)	Cargo	9,200 (6,600)	394 × 55.9 × 37(26)	14.75	Diesel	5,000	Gotaverken	Oskarshamns Varv
Feb. 23	Hermann Dauelsberg	Novia (514)	Cargo	12,400 (9,500)	—	—	Diesel	—	M.A.N.	Lubecker Fender-Werke
Mar. —	Norbulk A/S	Norbulk	Bulk carrier	28,000	597.1 × 79.75 × 49.33(34.5)	15.25	B & W diesel	9,400	Akers M.V.	Kristiansands M.V.

## TRIAL TRIPS

Date	Shipowners	Ship's Name and/or Yard No.	Type	Tons d.w. (gross)	Dimensions (ft.) L.b.p.(o.a.) × B. × D.(dft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
<b>Yards in Great Britain and Northern Ireland</b>										
Mar. —	Ellerman & Bucknall S.S. Co	City of Lichfield	Cargo	8,350 (6,750)	405(433) × 59 × 36.75(26.1)	14	8-cyl Sulzer diesel	5,040	Shipbuilders	Wm. Denny & Bros.
Mar. —	Denizcilik Bankasi T.A.O.	Kuzkuncuk (802)	Ferry	(1,000)	210(229.75) × 36 × 12.75	15	Tw.-scr. steam recip.	1,600	Shipbuilders; Christiansen & Meyer	Fairfield S.B. & E. Co
Mar. —	Denizcilik Bankasi T.A.O.	Konika (803)	Ferry	(1,000)	210(229.75) × 36 × 12.75	15	Tw.-scr. steam recip.	1,600	Shipbuilders/ Christiansen & Meyer	Fairfield S.B. & E. Co
Mar. —	Singapore Nav. Co. (H. C. Sleigh, Melbourne)	Hamilton Sleigh (131)	Tanker	27,500 (18,200)	615 × 82 × 44.5(33.5)	15	Geared turbine	12,750	D. Rowan	Blythswood S.B. Co
Mar. —	Bamburgh Shipping Co	Cheriot (367)	Ore carrier	18,150 (12,210)	505 × 70 × 40.75(29.5)	12.25	5-cyl Sulzer diesel	4,500	G. Clark	Austin & Pickersgill
Mar. 7	Lowland Tanker Co	Border Castle (1956)	Tanker	19,000 (13,590)	535(569.2) × 72.5 × 41(31.5)	14	6-cyl Doxford diesel	7,200	Shipbuilders	Swan Hunter, Walker
Mar. 7	W. H. J. Alexander	Sun XXIII	Tug	(150)	86 × 24 × 12.25	—	6-cyl diesel	1,210	Mirrlees, Bickerton & Day	Philip & Son
Mar. 8	Canadian Pacific Steamships	Empress of Canada (171)	Pass.	(27,300)	(650) × 85.5 × 40(29)	21	Tw.-scr. geared turbine	27,000	Shipbuilders	Vickers- Armstrongs, Walker
<b>Overseas Yards</b>										
Jan. 9	J. M. Carras Inc	Mayflower (4565)	Tanker	46,000 (30,000)	705(736.33) × 102 × 50(38)	16.5	Geared turbine	15,000	Shipbuilders	Bethlehem- Sparrows Point
Jan. 27	Victory Carriers Inc	Mount Vernon Victory (1671)	Tanker	46,000 (30,000)	705(736.33) × 102 × 50(38)	16.5	Geared turbine	15,000	Shipbuilders	Bethlehem Steel Co, Quincy
Feb. —	Nederlandsche Pacific Tankvaart Mij.	Caltex Naples (768)	Tanker	32,000 (21,161)	630(665.9) × 89 × 45(33.95)	16	Geared turbine	14,500	Shipbuilders	Wilton-Fijenoord
Feb. —	Cia. Colonial de Navegacion	Infante Dom Henrique (814)	Pass.	(24,061)	587.33(641.42) × 80.42 × 46.95(26.25)	21	Geared turbine	22,000	Shipbuilders	Cockerill-Ougrée
Feb. —	P. Smedvig, Stavanger	Veni (642)	Bulk carrier	24,000 (14,500)	552.9 × 73.5 × 46.9(33.33)	15.3	8-cyl M.A.N. diesel	10,200	Shipbuilders	Verolme United Shipyards
Feb. —	Govt. of Indonesia	Wandebori (503)	Cargo pass.	2,300 (2,165)	255.95(277.9) × 42 × (19)	12.5	8-cyl diesel	1,650	M.A.N.	Jos. L. Meyer
Feb. —	Jens C. Hagen	Holger Danske (5015)	Ferry	(3,510)	321.1 × 49.25 × (13.75)	18	Two diesels	—	Deutz	Hanseatische Werft
Mar. —	Cia. Espanola de Petroleos S.A.	San Marcial (94)	Tanker	32,000 (21,000)	610.33(652.5) × 90.1 × 45.95(34.25)	17	Parsons geared turbine	14,000	Vickers- Armstrongs, Barrow	Soc. Espanola de Const. Naval
Mar. 1	Shell Tankers N.V.	Acteon (628)	Tanker	18,000 (12,200)	530(559) × 69.25 × 39(29.75)	14.5	7-cyl B & W diesel	8,750	Shipbuilders	P. Smit Jnr.
Mar. 1	Esso Rederi A/B	Esso Stockholm (452)	Tanker	49,400 (31,244)	705(740) × 102 × 50(37.67)	17.2 (T)	de Laval geared turbines	16,500	Shipbuilders	Kockums M.V.

## MARITIME NEWS IN BRIEF

PASSAGE rates for the new "hotel"-class passenger liner *Transvaal Castle*, at present building at Clydebank for the Union-Castle Line, will range from £120 to £240 single to Cape Town. In addition there is a suite comprising a twin-bedded room, a sitting room and two bathrooms, suitable for two passengers for £700. Comparable fares in the *Windsor Castle* are first-class, £225 to £280, with a similar type of suite costing £950; tourist-class, £107 to £120.

ON SUNDAY April 9, Mr Jim Scott, general secretary of the National Union of Seamen, will hold a meeting in the Philharmonic Hall, Liverpool, to report to members on the state of the Union and its future policies. This is the first of a series of meetings at which he proposes to meet members in the various ports. Mrs E. M. Braddock, M.P., will take the chair in Liverpool.

CASTROL LTD are to appoint four assistant managing directors on 1 January 1962 to handle the growing expansion of the group's worldwide interests and further developments envisaged in the future. They are Mr J. A. V. Watson, Mr L. G. Packham, Mr C. E. R. Millidge and Mr A. A. Barr, all of whom are directors of the parent company. The new assistant managing directors will have equal responsibility to the deputy chairman and managing director and the board. These changes will follow the retirement at the end of the year of Mr W. F. List, assistant managing director since 1951. Mr List, who has served the company for over 50 years, will remain on the Castrol board.



MR R. H. WIGNALL has been elected chairman of the Manchester Steamship Owners' Association for 1961. Mr Wignall joined Marwood & Robertson Ltd in 1929 and was employed in the inward freight, marine and outward freight departments until his mobilisation in 1939. He spent most of the war in the Intelligence Corps. He rejoined the company in 1945 in the outward freight department. He became manager of the company's Manchester office in April 1954.

CAPTAIN HERBERT S. BREWSTER has been appointed director of operations for the marine department of Gulf Oil Corporation. Mr Brewster will direct the overall operations of Gulf's tanker fleet in its domestic and worldwide operations. He succeeds Mr J. R. Thompson who has resigned.

MR CECIL GARSTANG, general manager of Thos. Cook & Son Ltd, has been re-elected chairman of the Association of British Travel Agents for the year 1961-2. Mr R. R. May, managing director of Poly Travel Ltd, has been elected to a further term of office as vice-chairman.

MR C. MACPHERSON, principal engineer surveyor of Lloyd's Register of Shipping at New York since January 1954, is to retire on March 31. He will be succeeded by Mr R. R. Holtum, senior ship and engineer surveyor at New York.

NAVIGATION on the St Lawrence Seaway is expected to open on the following dates: Welland Canal and Third Welland Canal, April 1; Sault Ste. Marie Canal, April 4; South Shore, Beauharnois and Iroquois Canals, April 15; and Lachine and Cornwall Canals, April 15. The St Lawrence Seaway Development Corporation proposes to open the Wiley-Dondro Canal and ancillary locks on April 15.

PASSENGERS travelling on the new Shaw Savill liner *Northern Star* will have the use of nearly 45,000 sq ft of deck space. In addition to a large sports deck and open and enclosed prome-

MR A. C. GROVER has succeeded Mr J. E. Green as deputy chairman and treasurer of Lloyd's Register of Shipping. He was first elected to the General Committee in 1954. He became deputy chairman and treasurer in 1956, but resigned at the end of 1957 on his appointment as deputy chairman of Lloyd's. As chairman of Lloyd's in 1959 and 1960 he served ex-officio on the General Committee of Lloyd's Register



nades, access will also be provided to special observation decks. One of several of these vantage points, 1,300 sq ft in area, is formed by a platform raised above the sun deck at the forward end of the superstructure. Another, of 1,200 sq ft, will be found over the wheelhouse. These special observation decks provide uninterrupted views for the increasing number of amateur photographers who wish to obtain interesting pictures of passing points of interest. It is claimed that this is the first large British passenger vessel on which the topmost deck has been made available to passengers.

SULZER BROTHERS, acting on behalf of their Yugoslav licensees, have placed an order with Heenan & Froude Ltd, of Worcester, for a special Froude FA 16 dynamometer, capable of absorbing and measuring up to 20,000 bhp at speeds up to 225 rpm. The dynamometer, the second of its kind to be ordered for Yugoslavia in recent months, is to be installed at the "3 Maj" shipyard at Rijeka, on the Adriatic Coast.

THE INDIAN NAVY'S first aircraft carrier *Vikrant*, was formally commissioned at Belfast on March 4. The vessel, originally ordered for the Royal Navy from the Newcastle-on-Tyne shipyard of Vickers-Armstrongs (Shipbuilders) Ltd, was launched and named HMS *Hercules* in September 1945. Construction was suspended in May 1946, and on being sold to India in March 1957 the contract for her completion and modernisation was placed with Harland & Wolff Ltd, Belfast.



BEST BP APPRENTICE OF 1961

The sextant awarded to the best senior apprentice of the year in the BP Tanker Co Ltd was recently presented to Mr B. A. Moir by Mr J. Houston Jackson, managing director of the company. Mr Moir joined the company as a navigating apprentice in 1956 and served his four year apprenticeship in six ships, the last being the present flagship "British Queen". He obtained his second mate's certificate in 1960 and is now third officer of the "British Endeavour".



REFRIGERATED CARGO CONTAINERS

The first of a series of six refrigerated portable cargo containers has been delivered to Royal Mail Lines Ltd. The containers were made by A.I.R. Ltd, Birkenhead, and are designed to be lifted with a full cargo load. Each container has a capacity of 600 cu ft and measures: length 18ft 10in, width 8ft 4in and height 8ft 6in. It is expected that the new containers will generally be used on the Caribbean and Spanish mail routes. When not fully employed for the carriage of perishable cargoes the containers can be used as lock-up spaces for valuable non-refrigerated cargo.

MR A. R. HOLMES has been appointed purser of the *Queen Elizabeth* in succession to Mr Lionel Carine, who retires at the end of this month. Mr Holmes was purser of the *Britannic*, which was withdrawn from service last December.

MR J. W. ATWELL has been appointed an additional director of G. & J. Weir Holdings Ltd. Mr Atwell is managing director of the principal operating subsidiary company of the group, G. & J. Weir Ltd.

MR R. McL. FAIRFIELD has been appointed a director of Submarine Cables Ltd.

MR RALPH B. DEWEY has been re-elected president of the Pacific American Steamship Association.

BARTRAM & SONS LTD, shipbuilders, Sunderland, in conjunction with King's College, Newcastle upon Tyne, have made use of the University computer in the design stages of two new ships for Court Line Ltd and Aviation & Shipping Co Ltd. This is the first time that this computer has been used in this way for actual ships and it is certainly one of the first such occasions in this country. It has enabled Bartrams to complete the hydrostatic and stability calculations for the two ships in two days—work which would have taken them about two months using the conventional methods.

NEGOTIATIONS are under way to establish the first hydrofoil passenger boat service in New York between the World's Fair site and Manhattan. The two allied organisations seeking official and financial support for the venture are H. M. Tiedemann & Company, and the Hydrofoil Development & Operating Co. of Bellingham, Wash.

SINCE winter rates on the cross-Channel car ferry ships were cut in October last, the number of cars crossing has risen by nearly 20 per cent.

WORK has recently begun on a new pump test house and a new research laboratory at the Bedford works of W. H. Allen Sons & Co Ltd.

THE DAICHI CHUO KISEN KAISHA (The First Central Shipping Co Ltd) has moved to Daiichi Chuo Building, 6, 3-chome, Nihombashi-dori, Chuo-ku, Tokyo.

WEEKLY coal shipment figures from Blyth (Northumberland) have reached their highest level in the port's history. A total of 91 ships carrying 170,378 tons of coal left the port in one recent week, beating the previous best figure in December by over 6,000 tons.

DR D. N. TRUSCOTT has been elected chairman, and Mr W. D. H. Gregson vice-chairman, of the Electronic Engineering Association.

ZIM ISRAEL NAVIGATION CO LTD have cancelled the agreement whereby Phs. Van Ommeren Ltd act as their representatives in the United Kingdom.

## RECENT SHIP SALES

(Continued from page 270)

*Corona* to Singapore breakers for £17 5s per ton light displacement, "as is" Singapore.

Cargo steamer *Capitaine Lauwereins* (ex-Belgian *Veteran*, ex-Ocean *Veteran*, 10,925 dwt, 7,181 grt, 4,282 nrt, built Richmond 1942 by Todd-California Shipbuilding Corp.) sold by Cie. Maritime Belge to Italian buyers for transfer to the Panamanian flag, for £90,000 with survey due, "as is" delivery.

Cargo steamer *Chelatros* (ex-Edward K. Collins, 10,750 dwt, 7,176 grt, 4,380 nrt, built Panama City, Fla., 1944 by J. A. Jones Construction Co) sold by Kassos Steam Navigation Co Ltd, Syra, to Panamanian buyers for retention under Greek flag.

Cargo steamer *Cara* (3,126 dwt, 1,866 grt, 1,075 nrt, built 1929 by Burntisland Shipbuilding Co Ltd) sold by Scottish Navigation Co Ltd (Glen & Co Ltd), Glasgow, to Greek buyers for Panamanian registry for about £20,000.

Cargo steamer *Devanha* (ex-Lautoka, 10,190 dwt, 7,367 grt, 4,387 nrt, built Vancouver 1947 by West Coast Shipbuilders Ltd) sold by P & O Steam Navigation Co to Hong Kong trading buyers for about £105,000 with U.K./Continent delivery.

Motor vessel *Texelstroom* (ex-Dorrit Clausen, 2,174 dwt, 1,377 grt, 652 nrt, built 1947 by Aalborg Værft A/S) sold by N.V. Holland Stoomboot Mij. to the General Steam Navigation Co Ltd. To be renamed *Swallow*.

Tank steamer *Summit II* (ex-Gulfcoast, 7,140 grt, 4,373 nrt, built Sparrows Point, Md., 1937 by Bethlehem Shipbuilding Corp.) sold by Cia. Maritima Central S.A., Monrovia, to Formosan shipbreakers.

Tank steamer *Sumeccani* (ex-Alcor, ex-Portoria, ex-Dania, 1,044 grt, 553 nrt, built 1925 by Kjøbenhavns F. & S.) and cargo steamer *Podgora* (ex-Drava, ex-Essex *Druid*, ex-Kediri, 3,670 grt, 2,244 nrt, built 1919 by Rotterdam Dry Dock Co) sold by Yugoslav owners to Yugoslav shipbreakers.

LEWIS BERGER (GREAT BRITAIN) LTD, manufacturers of marine paints, have appointed new agencies in Egypt and Greece. The agencies are Thomson M. Teirah & Co, of Port Said, and Victores C. Ltd, Athens.

## FIFTY YEARS AGO

From THE SHIPPING WORLD of 15 March 1911

The Allan Line fleet has undergone considerable changes during the past year or two. The latest vessels to drop out of the list are the *Monte Videan*, which will be broken up, and the *Brazilian*, which, appropriately enough, has been purchased by Brazilian owners, and, after undergoing an extensive overhaul at the hands of the Ailsa Shipbuilding Company, has now left the Clyde for Rio de Janeiro. The latest addition to the fleet—the *Scotian*—takes up the first sailing on behalf of her new owners on Saturday week, when she will leave with a large complement of passengers for Halifax and Portland, Maine. The oldest vessel owned by Messrs. Allan is now the *Buenos Ayrean*, which has also the distinction of being the first ocean-going steel steamer ever built. It is believed that Messrs. McBrayne's *Iona*, which is also a steel steamer, is really older than the *Buenos Ayrean*, but then she is a comparatively small coasting vessel.

It is now definitely made known that the new White Star liner *Titanic*, of 45,000 tons, a sister ship of the *Olympic*, will be launched by Messrs. Harland & Wolff at Belfast on May 31. The *Olympic*, which is now being fitted with her machinery, is expected to be completed about the time when the *Titanic* is launched as she will leave Southampton on her maiden voyage to New York on June 14.

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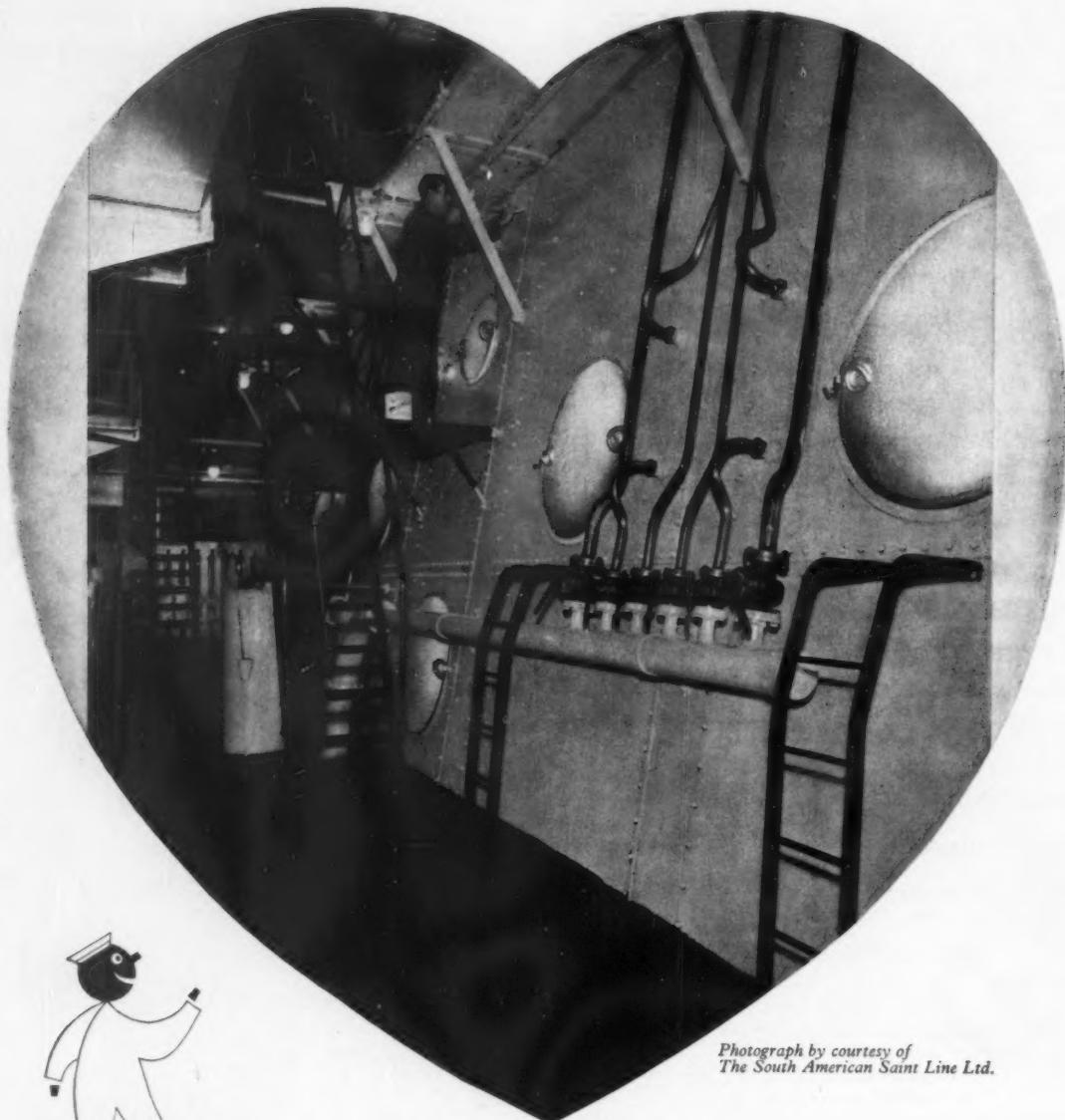
LEOPOLD WALFORD (C.A.) Ltd.  
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**we too  
are in  
our  
element**

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Photograph by courtesy of  
The South American Saint Line Ltd.



Jolly Jack says:—

## “International gets to the heart of things...”

“International” is a world-wide paint organisation with 25 factories in 17 countries. Each factory has its own research laboratory, constantly investigating local and specific corrosion problems. When they find the answers, another International paint is born, to provide further protection against corrosion for ships of all nations.

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